CHOP WOOD, CARRY WATER:[1] CUTTING TO THE HEART OF THE WORLD'S WATER WOES

JANET NEUMAN[2]

I. INTRODUCTION: REFRESH YOURSELF

Fill a tall glass with water from your tap and take a long swallow. Now, put the glass down and read on to refresh your knowledge about the world's water woes.

The average American family uses about 800 gallons of water a day, while the average African family uses only about five gallons

1. This expression comes from a Zen parable: "Before enlightenment, chop wood, carry water. After enlightenment, chop wood, carry water." SŌIKU SHIGEMATSU, ZEN FOREST: SAYINGS OF THE MASTERS 77 (1981). No matter how enlightened (or educated or wealthy) a country may believe itself to be, certain basic and humble necessities will always demand attention.

2. Professor of Law and Associate Dean of Faculty at Lewis and Clark Law School, Portland, Oregon. This Article was originally delivered as the Distinguished Lecture for the Florida State University College of Law's *Journal of Land Use and Environmental Law* in October 2006. Thank you to Donna Christie and the journal staff for inviting me to deliver the lecture and to Lewis and Clark students Allison Eshel and Andrew Kerr for their research assistance.

a day.[3] Of nearly two hundred countries in the world, just ten nations possess more than two-thirds of the globe's freshwater resources.[4] A decade ago, thirty-one countries faced chronic shortages of fresh water, and this number is projected to rise to forty-eight countries in the next two decades with shortages affecting nearly three billion people—more than a third of the world's population.[5]

Currently, more than a billion people (or about one out of every five in the world) lack access to safe drinking water like the liquid filling your glass.[6] More than twice that many people—2.6 billion, or more than forty percent of the world's population—lack access to improved sewer or sanitation facilities.[7] The lack of clean drinking water and adequate sanitation contributes to more than 250 million cases of waterborne and water-related diseases every year, causing some 14,000 deaths every day, about 4,000 of which are children under the age of five.[8]

The water gap is just one of the many differences between the rich and poor countries—just one variation on the age-old theme of the haves and the have-nots. American parents have been telling their children for generations: "Eat your dinner! Don't you realize how lucky you are? Children are starving in India!" But whether or not kids in New Jersey eat their dinner, children are still ailing in New Delhi.[9]

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3. Water Partners International, Water Facts, http://www.water.org/waterpartners.aspx?pgID=916 (last visited Mar. 21, 2008). Water Partners International is a charitable corporation that supports water projects around the world.

4. *Compare* NOW with Bill Moyers, Science & Health: Leasing the Rain (July 5, 2002), http://www.pbs.org/now/science/water2.html, *with* PETER H. GLEICK ET AL.,THE WORLD'S WATER 2006-2007: THE BIENNIAL REPORT ON FRESHWATER RESOURCES 221-27 (2006).

5. NOW with Bill Moyers, *supra* note 4.

6. *See* World Health Organization, Water Supply, Sanitation and Hygiene Development, http://www.who.int/water_sanitation_health/hygiene/en/ (last visited Mar. 21, 2008); *see also* Water Partners International, *supra* note 3.
7 WORLD HEALTH ORG. & UNICEF, MEETING THE MDG DRINKING WATER AND SANITATION TARGET: THE URBAN AND RURAL CHALLENGE OF THE DECADE 8, 18 (2006), *available at* http://www.wssinfo.org/en/142_currentSit.html.

8. United Nations Educational, Scientific and Cultural Organization, The UN World Water Development Report: Facts and Figures: Meeting Basic Needs, http://www.unesco.org/water/wwap/facts_figures/basic_needs.shtml (last visited Mar. 21, 2008) [hereinafter UN World Water]. When I delivered this lecture at Florida State University in Tallahassee, Florida, I noted that, at this death rate, Tallahassee's population of 156,000 could be wiped out in just a couple of weeks.

9. *See* Michael Specter, *The Last Drop: Confronting the Possibility of a Global Catastrophe*, THE NEW YORKER, Oct. 23, 2006, at 61(describing the plight of a family of seven living on the outskirts of New Delhi, India, where residents use polluted water from a community standpipe for bathing and laundry and stand in line for a few buckets of drinking water from a mobile water tanker). In fact, the gap between the haves and the have-nots is increasing. *See generally* DEP'T OF ECON. & SOCIAL AFFAIRS, UNITED NATIONS, THE INE-

Take a sip of water from your glass and ponder this situation for a moment. Is the gap between rich and poor countries just a fact of life? Is it inevitable that some children and their families have plenty of water and food and the hygiene and health that follow, while others struggle to stay alive? This Article suggests that, at least as to water, the disparity is not inevitable but is in fact amenable to some fairly straightforward and relatively inexpensive solutions.[10] Further, this Article argues that the United States should play an aggressive leadership role in addressing world water problems—a role it is not playing today.

Part II expands on this introductory description of the world's water woes, further detailing the discrepancies in water availability and use between the highly developed countries and the developing nations and drawing connections between these water inequities and other disparities in nutrition, education, and general economic well-being. Part III examines the drastic costs and consequences of the water gap, demonstrating that the inequities should be of considerable concern, not just to those holding empty glasses, but to the developed countries as well. Part IV outlines a preliminary agenda to address the world's water woes and to promote global water security and equity.

II. WORLD WATER INEQUALITY

A. Thirst

How much water does a person require to stay alive? The human body is about 65 percent water: a person will get thirsty when that amount drops by 1 percent; a reduction of 5 percent can cause a fever; and a decrease of 10 percent causes loss of mobility.[11]

QUALITY PREDICAMENT: REPORT ON THE WORLD SOCIAL SITUATION 2005, *available at* http://www.un.org/esa/socdev/rwss/media%2005/cd-docs/press.htm (describing the increase of world inequality from 1995-2005, discussed further in Part III, *infra*).

10. Others share this view of the possibilities. *See, e.g.*, Nina Munk, *Jeffrey Sachs's $200 Billion Dream*, VANITY FAIR, July 2007, at 140. Munk describes the Sachs-led Millennium Villages Project, which targets a number of villages in Africa with specific interventions designed to improve health and welfare, including providing clean water sources. In fact, Sachs's goal for these pilot projects goes way beyond water and sanitation; he "won't settle for less than the global eradication of extreme poverty," which he believes can be accomplished for about $110 per capita, or less than one percent of rich countries' income. *Id.* (Sachs details his argument in his book THE END OF POVERTY (2005)); *see also* MARK SANCTUARY ET AL., MAKING WATER A PART OF ECONOMIC DEVELOPMENT: THE ECONOMIC BENEFITS OF IMPROVED WATER MANAGEMENT AND SERVICES 26 (2005), *available at* http://www.who.int/water_sanitation_health/waterandmacroeconomics/en/print.html (noting that "modest" costs of less than ten U.S. dollars per person per year could provide water and sanitation sufficient to meet the UN's Millennium Development Goals in such places as Ghana, Tanzania, Cambodia, and Bangladesh).

11. MIKE MAGEE, HEALTHY WATERS: WHAT EVERY HEALTH PROFESSIONAL SHOULD

Death results from losing just 12 percent of the body's fluids.[12] A minimum of five liters of water a day—or about one and a half gallons—is necessary for an individual's basic survival.[13] Twenty liters a day (just over five gallons) can marginally support a family's most basic needs.[14] Fifty liters a day (about thirteen gallons) are necessary for basic family sanitation, while seventy-five liters a day (not quite twenty gallons) can help protect a household against disease.[15]

In the developing world, many people do not have enough water to fulfill even these minimal needs.[16] Throughout Africa, Asia, Central America, and the Caribbean, the number of people without adequate drinking water and sanitation add up to billions worldwide.[17] From A to Z, Afghanistan to Zambia, families lack indoor plumbing and potable water, the basis of a minimally healthy environment to support a decent quality of life. In 2002, only about thirteen percent of the total population of Afghanistan had access to safe drinking water.[18] Zambia's population was much luckier, as fifty-five percent of the total population in 2002 had access to safe drinking water—however, most of those people were in urban areas, and only thirty-six percent of Zambia's rural population had such access.[19]

B. Disease

Insufficient or polluted water supplies and inadequate sanitation kill millions of people every year.[20] Specific diseases associ-

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KNOW ABOUT WATER 29 (2005).

12. *Id.* A person can survive more than a month without food, but only a few days without water. Specter, *supra* note 9, at 64 (quoting Peter P. Rogers, professor of environmental engineering at Harvard).

13. MAGEE, *supra* note 11, at 30; *see also* Water Partners International, *supra* note 3. Of course, if this water is polluted, it may prevent absolute dehydration but still cause other problems. *See* Specter, *supra* note 9, at 61 (quoting a woman in New Delhi, India as she points "to a row of battered pails filled with thick, caramel-colored liquid" holding water from the community standpipe: "That water kills people . . . . Whoever drinks it will die").

14. MAGEE, *supra* note 11, at 30.

15. *Id.*

16. *See id.* Anyone with access to a supply of more than 100 liters of water a day most likely lives in a developed country. *Id.*; *see also* UN World Water, *supra* note 8 (noting that children born in the developed world consume thirty to fifty times as much water as those born in the developing world).

17. *See* UN World Water, *supra* note 8.

18. GLEICK ET AL., *supra* note 4, at 240-46.

19. *Id.* Furthermore, in the case of a country like Zambia, safe drinking water does not necessarily resemble North America's public water supplies and sophisticated plumbing. Both Afghanistan and Zambia are listed by the United Nations as among the "least developed countries" in the world. *See* DEP'T OF ECON. & SOCIAL AFFAIRS, *supra* note 9, at xi.

20. UN World Water, *supra* note 8 ("Between 1,085,000 and 2,187,000 deaths due to diarrhoeal disease can be attributed to the 'water, sanitation and hygiene' risk factor . . . .").

ated with poor sanitation and the lack of clean drinking water include familiar ailments such as cholera, dysentery, and malaria, as well as less familiar, exotic-sounding illnesses such as schistosomiasis and dracunculiasis.[21] Unspecified diarrheal illnesses are also associated with poor water conditions, and diarrheal diseases alone kill about two million people every year, mostly young children.[22] The particular causative agents of all of these various illnesses include bacteria, viruses, protozoa, and intestinal parasites, all of which thrive in polluted water and under conditions of inadequate personal hygiene.[23]

For instance, cholera is caused by a bacterium that can exist in a healthy human body in moderate numbers without making the host sick.[24] Furthermore, cholera is rarely directly contagious between people.[25] However, vulnerable individuals who do succumb to the disease quickly develop massive diarrhea and the bacteria are present in their feces.[26] Without adequate sewage disposal and other hygienic practices, drinking water or food can become contaminated, spreading cholera in explosive and deadly epidemics.[27] Cholera epidemics swept through India, Asia, Africa, North America, and Europe in the 1800s.[28] In 1854, Dr. John Snow of London traced the source of the disease in a London outbreak to drinking water contaminated with sewage.[29] Although this discovery led to protection of public water sources in England and other industrialized countries, cholera is still a leading cause of illness and death wherever sanitation is inadequate.[30] Since the

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21. *See* WORLD HEALTH ORG. & UNICEF, supra note 7, at 2.

22. *See* World Health Organization, *supra* note 6; *see also* Specter, *supra* note 9, at 63 (stating that more children died from diarrhea from 1996 to 2006 than everyone "killed in all armed conflicts since the Second World War").

23. World Health Organization, Drinking-Water Quality and Preventing Water-Borne Infectious Disease, http://www.who.int/water_sanitation_health/dwq/infectdis/en/print.html (last visited Mar. 21, 2008).

24. *See* World Health Organization, Cholera, http://www.who.int/mediacentre/ factsheets/fs107/en/print.html (last visited Mar. 21, 2008). In addition to the human body, brackish water is another "reservoir" for cholera-causing bacteria. *Id*.

25. United Nations Cyber School Bus, Fighting Disease: Disease List—Cholera, http://cyberschoolbus.un.org/special/health/disease/cholera (last visited Mar. 21, 2008).

26. World Health Organization, *supra* note 24. Cholera is one of the most rapidly fatal human diseases, with as little as a few hours between onset and death due to severe dehydration and kidney failure. *Id*.

27. *Id.*

28. *See* SANDRA HEMPEL, THE STRANGE CASE OF THE BROAD STREET PUMP: JOHN SNOW AND THE MYSTERY OF CHOLERA 1-7 (2007).

29. *Id*. at 171-75 (giving a fascinating account of Dr. Snow's work tracing the origins of London's cholera outbreaks to a particular water supply pump contaminated by a leaking sewage pipe). Dr. Snow's work earned him the appellation "the father of epidemiology" because of the systematic way he monitored and tracked cases throughout the city and linked them to the polluted water source. *Id*. at 165.

30. *Id.* at 270-75 (describing public water system improvements); *see also Cholera*

mid-1900s, the World Health Organization has reported serious cholera epidemics in Indonesia, India, Bangladesh, Africa, the Middle East, Russia, and South America, and each year cholera kills thousands of people and sickens hundreds of thousands of people worldwide.[31]

Dysentery is similar to cholera in its origins and routes of infection. Dysentery is caused by shigella bacteria and transmitted through contaminated water and food.[32] The World Health Organization lists six significant outbreaks of dysentery (sometimes called shigellosis) since the year 2000.[33] The outbreaks all occurred in African nations, including Lesotho, Liberia, the Central African Republic, Sudan, and Sierra Leone (twice).[34] The most recent, in the summer of 2004, was in a refugee camp located in North Darfur, Sudan; the epidemic broke out in mid-May and involved about 40,000 people by the end of June.[35]

Malaria, too, is related to inadequate water supplies, though in a different way than cholera and dysentery. Malaria is caused by a parasite that infects mosquitoes, which transmit the disease to humans.[36] Malaria-bearing mosquitoes breed in stagnant water.[37] Although malaria can be treated effectively with drugs, if it is not treated promptly, the disease is often fatal.[38] Over 500 million people become severely ill with malaria every year.[39] Most of these cases occur in sub-Saharan Africa, with additional occurrences in Latin America, Asia, the Middle East, and parts of Europe.[40]

Schistosomiasis and dracunculiasis are just two of many other

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2005, WKLY. EPIDEMIOLOGY REC. (World Health Org., Geneva, Switzerland), Aug. 4, 2006, at 297-99 (describing prevalence—and recent increase—of cholera where people live in unsanitary conditions).

31. *Id.* (recording 131,943 cases of cholera and 2,272 deaths in 2005 and noting that these numbers significantly underreport the actual cases).

32. WORLD HEALTH ORG., GUIDELINES FOR THE CONTROL OF EPIDEMICS DUE TO *SHIGELLA DYSENTERIAE* TYPE 1, http://www.searo.who.int/en/Section1257/Section2263/infokit/WHO-Guidelines_for_control_of_Shigella_in_Emergencies.pdf (describing disease and hygienic practices needed to prevent it); *see also* Centers for Disease Control and Prevention, Shigellosis, http://www.cdc.gov/ncidod/dbmd/diseaseinfo/shigellosis_g.htm (last visited Mar. 21, 2008) (describing the shigella bacterium).

33. World Health Organization, Shigellosis, http://www.who.int/csr/don/archive/ disease/shigellosis/en/ (last visited Mar. 21, 2008).

34. *Id.*

35. World Health Organization, Shigellosis in Sudan, http://www.who.int/csr/don/2004_07_14/en/index.html (last visited Mar. 21, 2008).

36. World Health Organization, Malaria, http://www.who.int/mediacentre/factsheets/fs094/en/ (last viewed Mar. 21, 2008).

37. National Biological Information Infrastructure, Mosquitoes and West Niles Virus, http://westnilevirus.nbii.gov/mosquitoes.html (last visited Mar. 21, 2008).

38. World Health Organization, *supra* note 36.

39. *Id.*

40. *Id.*

less well-known but deadly diseases associated with inadequate sanitation and impure drinking water.[41] Both of these diseases are caused by parasites living in contaminated water.[42] Even when such diseases do not result in death, their chronic nature and disabling symptoms interfere with children's growth and learning and with adults' ability to work and provide for their families.[43] Schistosomiasis affects more than 200 million people in the world, causing 200,000 deaths annually in sub-Saharan Africa alone.[44] Dracunculiasis also creates tremendous misery for many people in poor regions of the world, particularly in rural Africa.[45] The disease is also called "guinea worm disease" and has been described as a problem since ancient times.[46]

These cold, hard facts about thirst and disease are powerful on their own without elaboration or detailed analysis. However, examining some of the subtleties beneath the grim statistics reveals an even more distressing picture of how the lack of safe drinking water and sanitation affects individuals and families and then ripples out to cripple entire countries.

C. Carrying Water: Women's Work

Water inequalities in the developing world constitute a particular burden for women. The burden is both literal and figurative. Women and female children around the world spend a great deal of time literally carrying water for their families, and the effects of the task linger after the actual load has been set down.[47] The im-

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41. *See* World Health Organization, Water and Sanitation Related Diseases Fact Sheets, http://www.who.int/water_sanitation_health/diseases/diseasefact/en/index.html (last visited Mar. 21, 2008) (providing fact sheets on more than twenty water-related diseases).

42. *Id*.; *see also* World Health Organization, Schistosomiasis, http://www.who.int/schistosomiasis/en/ (last visited Mar. 21, 2008); World Health Organization, Dracunculiasis Eradication, http://www.who.int/dracunculiasis/en/ (last visited Mar. 21, 2008) [hereinafter WHO, Dracunculiasis].

43. WHO, Dracunculiasis, *supra* note 42.

44. World Health Organization, Epidemiological Situation, http://www.who.int/ schistosomiasis/epidemiology/en/ (last visited Mar. 21, 2008).

45. WHO, Dracunculiasis, *supra* note 42 (noting that the disease wears down people already living in poverty, putting their ability to survive in a downward spiral). Very long white worms emerge from the skin of a person afflicted with the disease. Directors of Health Promotion and Education, Guinea Worm Disease, http://www.dhpe.org/infect/guinea.html (last visited Mar. 21, 2008).

46. WHO, Dracunculiasis, *supra* note 42 (describing reference to the disease in ancient texts from Egypt, Assyrian Mesopotamia, Greece, Rome, and Persia and noting that the guinea worm is thought to be "the 'fiery serpent' which afflicted the Israelites during their exodus").

47. *See* MAGEE, *supra* note 11, at 34-35. (describing the cost to a country of women engaged in fetching water); *see also* Water Partners International, *supra* note 3 (estimating that millions of women and female children around the world spend several hours a day obtaining water).

age of women in developing countries hauling water is a familiar one.[48] In Africa, India, South America, and elsewhere, women carry water in vessels balanced on their heads, often nestled in wrapped turbans specially designed for the purpose, or in buckets suspended from wooden yokes across their shoulders.[49]

The work of carrying water occupies a tremendous amount of time and energy for women and children. For example, Indian women walk an average of nearly four miles a day (six kilometers), carrying more than five gallons of water (about twenty liters).[50] The national cost of fetching water in India is estimated to be 150 million women workdays annually.[51] Furthermore, water is heavy (more than eight pounds per gallon, or a kilogram per liter), and the task of carrying water represents a significant percentage of the daily caloric expenditure for many women in the developing world.[52]

D. The Ripple Effect

Water inequities do not exist in isolation, but instead ripple out to affect everything from household nutrition to education to gross domestic product. The impact on nutrition is multi-dimensional. For instance, when a woman's own health and strength are compromised by expending much of her daily caloric budget on gathering water, she is less likely to give birth to healthy babies and less able to care for and nourish her children.[53] Furthermore, many women gather water from contaminated sources, and although dirty water is understandably perceived as better than nothing, it is obviously not a healthy alternative.[54] Water-related diseases

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48. *See, e.g.*, National Geographic, Water Watch, http://www.nationalgeographic.com/waterwatch/?fs=plasma.nationalgeographic.com (displaying photograph of Kanuri tribal women carrying water in Niger) (last visited Mar. 21, 2008); Water Partners International, Photo Gallery, http://www.water.org/waterpartners.aspx?pgID=892 (last visited Mar. 21. 2008) (displaying photographs of women carrying water in India, Bangladesh, Ethiopia, and Kenya).

49. National Geographic, *supra* note 48.

50. MAGEE, *supra* note 11, at 35.

51. *Id*.

52. *See* EVA M. RATHGEBER, *Women, Men, and Water-Resource Management in Africa*, *in* WATER MANAGEMENT IN AFRICA AND THE MIDDLE EAST: CHALLENGES AND OPPORTUNITIES (Eglal Rached, Eva Rathgeber & David Brooks eds., 1996), *available at* http://www.idrc.ca/en/ev-31108-201-1-DO_TOPIC.html (reporting that in some parts of East Africa, women use nearly a third of their total caloric intake to gather water).

53. *See* WORLD HEALTH ORG., WORLD HEALTH STATISTICS 2007 (2007), *available at* http://www.who.int/whosis/whostat2007.pdf (linking children's potential to grow and thrive to several factors, including drinking water source, household wealth, and mother's occupation); *see also* MAGEE, *supra* note 11, at 35 (discussing impact of the lack of clean water on women and children).

54. *See* Munk, *supra* note 10 (describing the main water supply of the village of Re-

often take a particularly heavy toll on pregnant women and their babies.[55] Insufficient water for basic food preparation and hygiene compound the problem of keeping the family well-nourished and healthy.[56]

Lack of adequate water supply undermines overall food security, with droughts and resulting famines contributing to the death toll in many developing nations.[57] Poor people are disproportionately dependent on natural resources for their livelihood, making them particularly vulnerable to the effects of drought.[58]

The term "food security" is usually used at the national scale to describe the stability and resiliency of a country's food supply and the number of people affected by hunger or starvation.[59] The solutions proposed for increasing food security are often broad programs to increase a country's aggregate agricultural productivity and yield with new seeds, fertilizers, and other technologies.[60] But in order to implement national and international programs to improve food security successfully, the most basic issue of people's access to safe drinking water must be attended to. The Director General of the International Food Policy Research Institute and two co-authors made this link recently, saying "we must attend not simply to food security at the aggregate level, but to nutrition security (economic, physical, social, and environmental access to a balanced diet and *clean drinking water*) at the individual level of child, woman, and man."[61]

Water problems interfere with education as well. Children who are suffering from illness or who need to help their mothers gather water for daily subsistence often do not have the luxury of attend-

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hiira, Uganda, where the village's women and children come to gather water at a "cesspool" described as "a stagnant, filthy water hole with bugs floating on the surface").

55. *See id*. In the village of Ruhiira, Uganda, one in thirteen women will die during pregnancy or childbirth, compared to 1 in 2500 in the United States. Even if they could get to the nearest hospital (three to four hours away by wheelbarrow), the hospital itself has no running water or power. *Id*.

56. MAGEE, *supra* note 11, at 34-35.

57. *See* Specter, *supra* note 9, at 62 (describing Indian news stories about " 'suicide farmers,' driven to despair by poverty, debt, and often by drought"); Water Partners International, *supra* note 3.

58. SANCTUARY ET AL., *supra* note 10, at 39.

59. World Health Organization, Food Security, http://www.who.int/trade/glossary/story028/en/print.html (last visited Mar. 21, 2008).

60. Peter Rosset, Lessons From the Green Revolution (2000), http://www.foodfirst.org/media/opeds/2000/4-greenrev.html (discussing the successes and failures of the "Green Revolution," noting that although "miracle seeds," agrochemicals, irrigation, and genetically modified crops significantly increased overall agricultural productivity, this approach has not been effective in reducing hunger because it does not address the root causes of individual food insecurity).

61. JOACHIM VON BRAUN ET AL., AGRICULTURE, FOOD SECURITY, NUTRITION AND THE MILLENNIUM DEVELOPMENT GOALS 6 (2004), *available at* http://www.ifpri.org/pubs/books/ar2003/ar2003_essayall.htm (emphasis added).

ing school.[62] Moreover, it has been estimated that in developing countries thirty percent of schools themselves have no water.[63] Even if these schools have water for the students to drink, many of them do not have suitable or private latrines, and this deficiency also limits school attendance, particularly by girls.[64] When girls do not receive an education, they grow up without basic literacy to pass on to their own children, thus continuing the cycle of poverty.[65]

Individual families struggling with hunger, thirst, disease, lack of education, and limited opportunities aggregate into nations struggling with stunted economies. Above and beyond the immediate, short-term costs of coping with widespread illness, these water-related diseases and associated socioeconomic problems retard economic growth. One study values the indirect economic impact of malaria alone on sub-Saharan Africa over time in the hundreds of billions of dollars, estimating that this single disease slows economic growth in Africa by at least 1.3 percent per year.[66] If malaria had been eradicated thirty-five years ago, the region's gross domestic product would be as much as thirty-two percent higher today, an amount equivalent to 100 billion dollars in United States currency.[67]

The United Nations estimated in 2002 that diarrheal diseases and malaria together caused 3.1 million deaths globally and accounted for a seven percent loss in "disability-adjusted life years."[68] On a global scale, closing the gap on water supply and sanitation could boost the annual number of "working days" by 322 million, thereby adding global economic value of nearly 750 million United States dollars every year.[69]

These estimates suggest that investments in water and sanitation can generate strong returns in terms of a productive labor force and a healthy economy. That conclusion is corroborated by looking at those countries whose economies rest, at least in part,

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62. *Cf.* MAGEE, *supra* note 11, at 33-34 (noting the low rates of school attendance in developing countries); *see also* Specter, *supra* note 9, at 63.

63. Specter, *supra* note 9, at 63.

64. *Id.* ("A recent study in Bangladesh found that the addition of a single private toilet could increase the number of girls attending school by as much as fifteen per cent.").

65. DEP'T OF ECON. & SOCIAL AFFAIRS, *supra* note 9, at 17, 21 (noting evidence from India showing "that high levels of education, especially among women, can short-circuit poverty" and that even with poor water supply and inadequate sanitation, "the children of educated mothers have much better prospects for survival than do the children of uneducated mothers").

66. SANCTUARY ET AL., *supra* note 10, at 37.

67. *Id.*

68. UN World Water, *supra* note 8.

69. SANCTUARY ET AL., *supra* note 10, at 41-42.

on a reliable water supply and a healthy sanitation system.

E. Just Add Water

In contrast to the conditions in the developing world, the residents of developed countries rarely experience extreme thirst or its dire consequences. In the United States, with a population of nearly 300 million people, almost every household is fully plumbed.[70] A network of pipes delivers safe, reliable, and inexpensive drinking water on demand while other pipes remove wastewater with a flip of a lever. An average American generally uses more than 100 gallons of water at home every single day.[71] When indirect, non-household use is considered, per capita water use in the United States is approximately 1400 gallons a day.[72] Americans use more water per capita than any other country's population, but the residents of other developed countries use significant amounts as well. The recent average daily per capita consumption of water in Canada and Australia, for instance, has been relatively close to that of the United States, at over ninety and over eighty gallons per day, respectively.[73]

The waterborne diseases that are still widespread in the rest of the world have been mostly eradicated in the developed countries.[74] For instance, cases of cholera and similar illnesses transmitted by contaminated water are virtually unknown in the United States and Canada, where disease-causing bacteria or other agents are readily destroyed by chlorine, which has been in widespread use to treat drinking water for many decades, and

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70. Even highly developed countries like the United States contain underserved areas and pockets of population with less adequate water facilities. *See, e.g.*, THE ENVTL. JUSTICE COAL. FOR WATER, THIRSTY FOR JUSTICE: A PEOPLE'S BLUEPRINT FOR CALIFORNIA WATER 57 (2005) (showing range of cleanliness of drinking water among California counties and noting that some rural areas reliant on groundwater experience higher levels of contamination than the larger urban areas); Eric Mortenson, *Ancient Place Has New Features*, THE OREGONIAN, July 11, 2007, at B01 (describing a Corps of Engineers project to improve the "sketchy" water and sewer service for the more than fifty Native American residents of Cellilo Village, Oregon who had been living in substandard conditions since their original village site was flooded in 1957 by the Dalles Dam on the Columbia River).

71. U.S. Geological Survey, Water Science for Schools: Water Q&A: Water Use at Home, http://ga.water.usgs.gov/edu/qahome.html (last visited Mar. 21, 2008).

72. DEBORAH S. LUMIA ET AL., ESTIMATED USE OF WATER IN THE UNITED STATES IN 2000 1 (2005), *available at* http://pubs.usgs.gov/fs/2005/3051/pdf/fs2005-3051.pdf (reporting withdrawals in 2000 amounting to 1430 gallons per person).

73. *See* The Atlas of Canada, Domestic Water Consumption, 1999, http://atlas.nrcan.gc.ca/site/english/maps/freshwater/consumption/domestic/1 (last visited Mar. 21, 2008); Australian Government, Indicator: HS-42 Water Consumption Per Capita, http://www.environment.gov.au/soe/2006/publications/drs/indicator/335/index.html (last visited Mar. 21, 2008).

74. *See* Specter, *supra* note 9, at 63.

where contact with sewage-contaminated water is rare.[75] Most of the cholera cases reported in the U.S. and Canada in 2006 were noted as "imported" cases; the only "homegrown" cases of cholera in the United States were linked to Hurricane Katrina, which resulted in widespread flooding by contaminated waters.[76]

In contrast to the image of women balancing jugs of water on their heads in Africa, the ubiquitous image for the developed world would perhaps be American women carrying bottles of Aquafina or Dasani, bottled water produced by Pepsi and Coke, respectively.[77] The bottled water industry has exploded in recent years, with bottled water being the fastest growing product in the top fifty supermarket categories in 2001 and taking up as much as half the shelf space in soft drink aisles; spending on bottled water has reached as much as 100 billion dollars annually.[78] The bottled water phenomenon has been fueled in part by concerns about tap water safety.[79] This concern is largely misplaced, since domestic drinking water in the United States is subject to heavy regulation, making it quite safe overall, while bottled water is not as closely regulated and its quality is not necessarily assured.[80] In fact,

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75. *See* WORLD HEALTH ORG., EMERGING ISSUES IN WATER AND INFECTIOUS DISEASE 12 (2003). However, new contaminants present different water quality challenges in the developed countries, including new pathogens such as cryptospondium, legionella, and norovirus, as well as unexpected substances such as hormones, endocrine disrupter chemicals and antibiotics. *Id.* At 7 and Melissa Knopper, *Drugging Our Water: We Flush It, Then We Drink It*, E/ THE ENVIRONMENTAL MAGAZINE (Feb. 2003).

76. *Cholera 2005*, *supra* note 30, at 302.

77. *See* The Coca-Cola Company, Product List, http://www.thecoca-colacompany.com/brands/brandlist.html (last visited Mar. 21, 2008) (Dasani is only one of the company's several brands of bottled water products sold around the world); Pepsi USA, Pepsi Brands—Aquafina, http://www.pepsi.com/help/faqs/faq.php?category=pepsi_brands& page=aquafina (last visited Mar. 21, 2008); *see also* 54dasani.jpg, http://www.stanford.edu/class/linguist34/advertisements/54dasani/54dasani.jpg (last visited Mar. 21, 2008) (showing image of woman drinking water); DrinkingWater.jpg, http://www.lifedynamix.com/articles/files/DrinkingWater.jpg (last visited Mar. 21, 2008) (showing image of woman drinking bottled water).

78. PETER H. GLEICK ET AL., THE WORLD'S WATER 2004-2005: THE BIENNIAL REPORT ON FRESHWATER RESOURCES 17 (2004) (estimating total consumer expenditures on bottled water of $100 billion annually); ROBERT GLENNON, WATER FOLLIES: GROUNDWATER PUMPING AND THE FATE OF AMERICA'S FRESH WATERS 2 (2002); *cf.* GLEICK ET AL., *supra* note 4, at 169 (estimating total annual sales of $50 to $100 billion).

79. GLEICK ET AL., *supra* note 78, at 170. Perhaps not surprisingly, the bottled water industry itself spends a great deal of money on advertising to convince people that bottled water is safer than tap water. *Id.*; *see also* GLEICK ET AL., *supra* note 4, at 16-26.

80. Coca Cola's planned introduction of Dasani bottled water into the United Kingdom in 2004 was derailed when the company was forced to recall 500,000 bottles of the product because of bromate contamination. BBC News, Dasani UK Delay Cans Europe Sales (Mar. 24, 2004), http://newsvote.bbc.co.uk/go/pr/fr/-/2/hi/business/3566233.stm. The bromate was formed when calcium was added to the tap water from Sidcup, Kent, England that Coke used as the basis of its U.K. version of Dasani. *Id.* Adding calcium is part of Coke's regular treatment of its bottled water, but apparently the calcium used in England "did not meet [their] quality standards." *Id.*

ironically, often bottled water is simply tap water that has been put in a bottle, perhaps with some processing or additives.[81] However, even though neither tap water nor bottled water may be as pure and healthy as we are sometimes led to believe, both are a far cry better than the drinking water available in much of Africa, Asia, and South America.

A baseflow of clean drinking water and adequate sanitation bolsters a population's general health, safety, and welfare. It would be a gross overstatement to suggest that water is all that is required to set a country on the path to a healthy, educated, productive citizenry and a strong economy. But without decent water and hygiene, it is impossible even to start down that path. In other words, water may not be sufficient, but it is absolutely necessary to progress.

The health benefits alone of clean water systems are crucial. The United Nations identifies improved health as a key factor for improving global equity, noting that health is not just important to an individual's quality of life, but "also determine[s] levels of opportunity and productivity."[82] When a population is relatively free from epidemic and chronic diseases, the way is cleared for healthy babies to grow into thriving children and eventually productive adults. Healthy mothers and children are especially important and effective in breaking the cycle of intergenerational poverty, which is itself "both a cause and an effect of ill health."[83]

A society can then move beyond survival and subsistence. Universal education can flourish and give individuals the personal tools to improve their lives. Secondary education seems to produce "the greatest payoff, especially for women."[84] Just as the consequences of bad water ripple throughout the family, society, and economy, the ripple effect can be positive as well as negative. Good water leads to good health and nutrition, which in turn foster individual and collective productivity. Educated, healthy workforces provide the backbone of the developed countries' economic prosperity.

By comparison to the developing countries, the economies of

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81. Pepsi recently agreed, under pressure from a group called Corporate Accountability International, to change its label for Aquafina bottled water to note that the water is from a "public water source." Democracy Now!, The Bottled Water Lie: As Soft Drink Giant Admits Product Is Tap Water, New Scrutiny Falls on the Economic and Environmental Costs of a Billion Dollar Industry (Aug. 1, 2007), http://www.democracynow.org/2007/8/1/the_bottled_water_lie_as_soft.

82. DEP'T OF ECON. & SOCIAL AFFAIRS, *supra* note 9, at 22.

83. *Id*.

84. *Id*. at 21.

the nations in the developed world are mostly thriving.[85] A universal, reliable, and healthy water supply is one essential building block in these economies.[86] In reflecting on the tremendous benefits that clean water has brought to the developed world in terms of good health and food production, one observer effuses "[n]ot even the miraculous scientific achievements of the twentieth century have affected human health and development as profoundly as has the ready availability of clean water."[87] An Indian hydrologist, discussing his country's ambitious goals for the future, says "[i]t is a fact of the human condition that we can achieve none of our goals without water. Nobody could."[88]

The Indian hydrologist's observation begs a question: *will* his country—and other developing nations—have the necessary water to achieve their goals? Deflecting a direct answer to that question for a bit, the next Part detours away from the water's edge to discuss the larger context which will, by necessity, shape solutions to the world's water woes—a context informed by twenty-first century economic and political realities, including a globalized economy, shifting economic and political powers, and a changed role for the United States and other countries in the world.[89] Eventually, the discussion will turn back to water.

III. GLOBALIZATION AND GROWING INEQUALITY

A. The New Global Economy

Astronomers and physicists may say that the universe is expanding, but the conventional cultural wisdom is that the world is effectively getting smaller.[90] Although a global economy has ex-

85. A list of the twenty-one richest countries in the world, as measured by gross domestic product per capita, contains, in addition to the United States, Canada, Japan, and Australia, fifteen European countries plus the United Arab Emirates and Equatorial Guinea, both of which have significant petroleum wealth. *See* Aneki.com, Countries with the Highest GDP per Capita, http://www.aneki.com/countries_gdp_per_capita.html (last visited Mar. 21, 2008). Recent economic downturns for someof these countries will not likely change their relative position dramatically.

86. *See generally* James Salzman, *Thirst: A Short History of Drinking Water*, 18 YALE J.L. & HUMAN. 94, 96, 113-17 (2006) (describing the link between drinking water and socio-economic development).

87. Specter, *supra* note 9, at 63.

88. *Id*.

89. The discussion that follows ranges through more than 500 years of history in only a few pages and touches upon several complex international issues in a fairly general way. The discussion is therefore necessarily over-simplified. My purpose is simply to give the reader a snapshot of current world affairs in order to place the water issues in a larger context.

90. *Compare, e.g.*, The National Aeronautics and Space Administration, What Powered the Big Bang?, http://science.hq.nasa.gov/universe/science/bang.html (last visited Mar.

isted in some form for many centuries (beginning with the earliest journeys of Chinese silk and Indian spices around the world), within the past few decades the pace of globalization has increased exponentially. Technologically, socially, economically, and culturally, the world truly is shrinking. Yet, at the same time, the gap between the world's haves and have-nots is increasing.[91] This Part first examines the forces of globalization, then considers how these forces are exacerbating the gap between the world's haves and have-not, and finally views these developments through the lens of water.

One commentator identifies three historic rounds of globalization: 1) the interchange of ideas and goods in the ancient world by way of explorers, traders, and scholars; 2) imperialism and colonization, accompanied by the export of the Industrial Revolution around much of the world; and 3) the current round of borderless financial transactions and instantaneous communication.[92] In the first two periods, the concept of a global economy had a fairly limited meaning. Intrepid explorers opened trading routes and early traveling scholars and diplomats fostered limited exchange of ideas and culture.[93] Government/merchant partnerships conducted international trade in desirable goods, including spices, coffee, textiles, gold, and silver.[94] Successful trading enterprises were very lucrative, but each bilateral transaction was slow and perilous and carried a substantial risk of failure.[95]

Colonization and settlement followed closely upon exploration

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21, 2008) (giving an explanation for the expansion of the universe), *with* AM. COUNCIL ON EDUC., EDUCATING AMERICANS FOR A WORLD IN FLUX: TEN GROUND RULES FOR INTERNATIONALIZING HIGHER EDUCATION (1995) (recognizing the need for international education due to the shrinking of the world from the forces of globalization).

91. DEP'T OF ECON. & SOCIAL AFFAIRS, *supra* note 9, at 2; *see also* discussion *infra* Part III.B.

92. Ashutosh Sheshabalaya, *The Three Rounds of Globalization*, THE GLOBALIST, Oct. 19, 2006, http://www.theglobalist.com/StoryId.aspx?StoryId=5687.

93. *See id.* (noting that as early as the fourth century B.C.E., Greece sent an ambassador, Megasthenes, to India). *See generally, e.g.*, CRANE BRINTON ET AL., A HISTORY OF CIVILIZATION: 1300 to 1815, at 500-29 (4th ed. 1971) (describing the early exploration and trading activities of several European countries).

94. *See* BRINTON ET AL., *supra* note 93, at 484, 522-23, 528 (describing the English East India Company, chartered by the English crown, and the Dutch East India and Dutch West India Companies, founded in the Netherlands in 1602 and 1621, respectively, and noting that with the help of these latter companies, the Dutch operated between half and three-quarters of the world's merchant vessels in the mid-seventeenth century).

95. *See id.* at 511, 523. In addition to the natural perils of sailing the oceans hundreds of years ago, the traders were subject to attack by their competitors, by pirates, and by privateers, who were essentially pirates, but aligned with one country instead of outlaws without alliances. *Id.* But successful voyages amassed considerable wealth for the trading companies. *Id.* at 522-23 (noting that the Dutch government gave their companies extensive control over their own affairs, operations, and profits and that the companies paid annual dividends of eighteen percent to their shareholders for many years).

and trade; several European nations erected powerful empires on the historic foundations of "discovery" and trade dominance.[96] Though private companies thrived under government charters and other privileges, the nations themselves were the central players in the global economy at that time.[97] The period of colonial empire-building played out over centuries and continents, with plenty of bloodshed along the way.

The curtain lowered on the second round of globalization with the end of World War II. Several new international institutions entered the scene, including the United Nations, the World Bank, and the International Monetary Fund, setting the stage for further global changes, both intentional and unintentional. The United Nations brought together dozens of countries—large and small, rich and poor, occupier and colony—in new ways, moving beyond the era of lopsided trade relationships and colonialism and partially leveling the international playing field among nations.[98]

The primary purpose of the United Nations was "to save succeeding generations from the scourge of war."[99] Although that lofty goal seems almost quaint with the benefit of sixty years of hindsight, the United Nations Charter sets out a straightforward framework—at once disarmingly simple and daringly sophisticated—that makes world peace sound reasonably attainable.[100] Of course, the entire system depends on voluntary and cooperative behavior by the member nations, originally fifty-one and now nearly two hundred.[101] The founding countries realized that world

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96. *See generally id.* (discussing the power of England, Spain, Portugal, and the Netherlands, among others, in trade and empire-building). *See also* ROBERT J. MILLER, NATIVE AMERICA, DISCOVERED AND CONQUERED: THOMAS JEFFERSON, LEWIS & CLARK, AND MANIFEST DESTINY 12-24 (Bruce E. Johansen ed., 2006) (describing activities beginning in the thirteenth century by several European countries in conjunction with the Catholic Church and the Church of England to lay claim to and occupy newly "discovered" parts of the non-Christian world using the international law doctrine of discovery).

97. BRINTON ET AL.*, supra* note 93, at 528-29 (describing how trade injected wealth and fostered economic expansion in the sponsoring countries).

98. *See, e.g.*, DAVID BRYN-JONES, TOWARD A DEMOCRATIC NEW ORDER 237-42 (1945) (discussing the potential economic benefits in international cooperation for all nations, but especially for smaller, weaker nations). The United Nations Charter includes as a purpose "to reaffirm faith . . . in the equal rights . . . of nations large and small." U.N. Charter Preamble.

99. U.N. Charter, *supra* note 98.

100. For example, the signatory nations agreed to settle their international disputes by peaceful means and to refrain from the threat or use of force against the territorial integrity or political independence of any other state. U.N. Charter art. 2, para. 1. Furthermore, the countries empowered the United Nations General Assembly and Security Council to "enforce" these agreements by hearing claims by countries against each other, mediating disputes, recommending solutions, and dispatching international peacekeeping troops. U.N. Charter arts. 33-36, 42-44.

101. United Nations, United Nations Member States, http://www.un.org/members/growth.shtml (last visited Mar. 21, 2008).

peace would require more than good intentions and cooperation and that fostering prosperity would also be important to that end. For that reason, the Charter itself declares the importance of pursuing higher standards of living, full employment, and conditions of economic and social progress and development with a view to creating the conditions of stability and well-being necessary for peace.[102] At the same time, the nations also established other subsidiary institutions and agreements to help attain these economic goals, including the World Bank, the International Monetary Fund, and the General Agreement on Tariffs and Trade.[103]

The World Bank was created in significant part to help countries with post-World War II reconstruction.[104] Today, the Bank's stated mission is to eradicate poverty and foster stability by promoting economic development.[105] Although the Bank is part of the United Nations, it is independently managed through its own governance structure. The member nations (currently numbering 185) own shares, and voting power is weighted according to shares owned.[106] The five largest shareholding nations—the United States, Japan, Germany, France, and the United Kingdom—thus exercise considerable control in the Bank's governance.[107] The President of the World Bank is selected by the Bank's Executive Directors; however, for over fifty years, it has been an unwritten "prerogative" for the United States to choose the president.[108]

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102. *See* U.N. Charter, *supra* note 98.

103. ARMAND VAN DORMAEL, BRETTON WOODS: BIRTH OF A MONETARY SYSTEM 2-3 (1978).

104. The World Bank, World Bank History, http://www.worldbank.org/ (search "History"; then follow "Archives—World Bank History" hyperlink) (last visited Mar. 21 2008). The Bank's first loan was to France for $250 million for rebuilding and recovery from World War II. *Id*.

105. *Id*. Reconstruction after conflicts and natural disasters is still part of this work as well. *See id*.

106. *See* The World Bank, Voting Powers, http://www.worldbank.org/ (search "Voting Powers"; follow "Board of Executive Directors—Voting Powers" hyperlink) (last visited Mar. 21 2008).

107. *See* The World Bank, IRBD: Votes and Subscriptions, http://www.worldbank.org/ (search "Votes and Subscriptions": follow "Boards of Executive Directors—IRBD: Votes and Subscriptions" hyperlink) (last visited Mar. 21, 2008). The United States controls 16.4 percent of total shares, Japan controls 7.9 percent, Germany 4.5 percent, and France and the U.K. each control 4.3 percent. *Id*. Since some decisions require an 80 percent supermajority vote, the U.S. share of over 16 percent operates as an effective veto. *See* The World Bank, Executive Directors, http://www.worldbank.org/ (search "Boards of Executive Directors"; follow "Boards of Executive Directors—Executive Directors" hyperlink) (last visited Mar. 22, 2008).

108. All eleven presidents since the Bank's founding have been Americans. In mid-2007, Paul Wolfowitz was forced to resign as World Bank president as a result of a scandal concerning alleged improper intervention in salary increases for his "longtime companion" Shaha Riza, a Bank employee. Wolfowitz had also been criticized for "running the bank as an adjunct of the Bush administration," and some World Bank reformers demanded that "the end of Wolfowitz mark the beginning of a new selection procedure," thus threatening,

In recent years, the World Bank has disbursed between eighteen and twenty billion dollars a year in loans and grants, and there is no doubt that much of this investment has been tremendously valuable and helpful to poor countries.[109] However, the Bank has also drawn criticism on several fronts, notably that its imposition of Western economic agendas and Western recipes for development are not necessarily the best approach in many countries and in fact may cause harm without alleviating poverty, and that World Bank funds come with too many strings attached—such as insistence on privatization of services and other free market criteria—as a way of promoting "neoliberal" macroeconomic policy.[110]

The International Monetary Fund (IMF) is also under the United Nations umbrella but is separately governed by its member countries.[111] The IMF's broad mandate includes promoting international monetary cooperation, assisting countries with lopsided balances of payment through debt restructuring and other programs, promoting global economic growth and international trade, stabilizing global markets and monetary exchanges, and preventing domestic financial crises from becoming international crises.[112]

Like the World Bank, the IMF has drawn sharp criticism from

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at least temporarily, the customary American prerogative. Peter S. Goodman, *Ending Battle, Wolfowitz Resigns from World Bank*, WASH. POST, May 18, 2007, at A01. In the end, another American was named president. *Id*.

109. The World Bank, Projects & Lending, http://web.worldbank.org/ (search "Projects & Lending"; follow "FAQs—Projects & Lending" hyperlink) (last visited Mar. 23, 2008).

110. *See e.g.*, CATHERINE CAUFIELD, MASTERS OF ILLUSION: THE WORLD BANK AND THE POVERTY OF NATIONS 143-65 (1996) (criticizing the World Bank's imposition of western economic agendas and systems on all borrowing nations regardless of their uniqueness); *see also, e.g.*, PETER BOSSHARD ET AL., GAMBLING WITH PEOPLE'S LIVES: WHAT THE WORLD BANK'S NEW "HIGH-RISK/HIGH-REWARD" STRATEGY MEANS FOR THE POOR AND THE ENVIRONMENT 5, 24, 38 (2003), *available at* http://www.foe.org/camps/intl/worldbank/gambling/Gambling.pdf (criticizing the Bank for overriding democratic processes in borrowing countries and insisting on loan conditions that benefit the western private sector); Melissa A. Thomas, *Can the World Bank Enforce its Own Conditions?* 35 DEV. AND CHANGE 485, 485-97 (2004) (describing numerous policy-related loan conditions); David Hunter & Lori Udall, The World Bank's New Inspection Panel: Will It Increase the Bank's Accountability?, http://www.ciel.org/Publications/issue1.html (last visited Mar. 23, 2008) (assessing whether new processes will address the bank's pervasive problems); Multinational Monitor, *In Defence of the Bank: An Interview with Armeane Choksi*, 16 MULTINATIONAL MONITOR (1994), http://multinationalmonitor.org/hyper/issues/1994/08/mm0894_11.html (noting that the Bank itself had commissioned some of the critical reports and describing the Bank's planned response).

111. The IMF currently has 185 member countries. International Monetary Fund, The IMF at a Glance, http://www.imf.org/external/np/exr/facts/glance.htm (last visited Mar. 23. 2008) [hereinafter IMF, Glance]. Similar to the World Bank, the countries contribute the funding for the organization's programs in varying amounts, and voting power is weighted according to contributions. International Monetary Fund, IMF Members' Quotas and Voting Power and IMF Board of Governors, http://www.imf.org/external/np/sec/memdir/members.htm (last visited Mar. 23, 2008).

112. IMF, Glance, *supra* note 111.

scholars, economists, and social activists all across the political spectrum. For example, several years ago, Jeffrey Sachs, then the Director of the Harvard Institute for International Development, called for the Fund's overhaul and expressed alarm about the power of "this small secretive institution" to "dictate the economic conditions of life to 75 developing countries . . . constitut[ing] 57 per cent of the developing world outside China and India."[113] Another observer noted that the United States government "muscles into the fund's turf" and influences its work behind the scenes when American strategic interests are involved, prompting politicians and businessmen around the world to claim that the IMF "acts as the United States Treasury's lap dog."[114]

Whether or not the reality of American influence on the World Bank and the IMF matches these perceptions, it is certainly true that these international institutions have played a significant role in extending and shaping today's global economy and that the developed countries who are integral to the institutions' governance wield considerable influence over the terms of other countries' economic development.

One more force that deserves mention in this regard is free trade. The beginnings of today's free trade regime were contemporary with the formation of the World Bank and the International Monetary Fund just after World War II, with the signing of the General Agreement on Tariffs and Trade (GATT) in 1947.[115] GATT's original purpose was to foster open international trade by reducing tariffs on imports, removing import quotas and other restrictions, and eliminating other mechanisms of economic protectionism imposed by national governments.[116] Opening international markets to the free flow of goods could help with postwar reconstruction as well as provide mutual economic benefits among nations to support ongoing friendly and peaceful relations.

More than fifty years after GATT was negotiated to break

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113. Jeffrey D. Sachs, *Power unto Itself*, FIN. TIMES (London), Dec. 11, 1997, at 21; *see also* Jeffrey D. Sachs, *Bretton Woods: 50 Years on: IMF, Reform Thyself*, WALL ST. J., July 21, 1994, at A14. To its credit, the IMF has taken steps in recent years to address some of these criticisms. *See* Hoover Institution Public Policy Inquiry, IMF Surveillance (Mar. 1999), http://www.imfsite.org/operations/surveil-1.html (describing changes at the IMF, including attempts at increased transparency and improved monitoring of developing economic trends). According to the IMF itself, its Fall 2007 annual meeting will be addressing "further IMF reform." Jeremy Clift, Meetings to Focus on Growth, IMF Reforms (Oct. 12, 2007), http://www.imf.org/external/pubs/ft/survey/so/2007/NEW1012A.htm.

114. David E. Sanger, *As Economies Fail, the I.M.F Is Rife with Recriminations*, N.Y. TIMES, Oct. 2, 1998, at A1.

115. General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT].

116. *See id.*

down restrictive trade barriers, the concept of free trade has taken on a whole new meaning. New agreements executed primarily in the 1990s expanded the areas of coverage far beyond traditional trade issues of tariffs and quotas.[117] The new agreements—such as the North American Free Trade Agreement (NAFTA), the Central American Free Trade Agreement (CAFTA), and several others—subject signatory countries to far-reaching economic obligations, including providing new international protections for intellectual property and investments, eliminating subsidies, following certain taxation and procurement policies, and pursuing deregulation and privatization.[118]

Critics say that these new generations of trade agreements have "very little to do with trade" and are "certainly not free."[119] In fact, the expanded trade agreements are viewed by many as simply one component of an organized agenda by multinational business and finance companies, with the assistance of politicians and economists, to "impos[e] a complex set of nontrade rules covering investment, property rights and domestic sovereignty that will profoundly limit the policy choices of those countries where the factories are built, the capital invested."[120] Even some free market advocates became dismayed with how free trade has been "hijacked" for other purposes: a few years ago, two leading economists called the recent bilateral trade agreements a "sham," with "the ultimate objective being the capture, reshaping and distortion of the WTO in the image of American lobbying interests."[121]

Today's free trade regimes have been blamed for many ills, including migration of jobs and businesses to countries with cheap

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117. The WTO website collects the more than sixty trade agreements that were negotiated in the 1980s and 1990s and that created the regime we have today. World Trade Organization, Understanding the WTO: The Agreements, http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm1_e.htm (last visited Mar. 23, 2008).

118. *Id.* The World Trade Organization is empowered to enforce the new obligations by handling disputes arising under the agreements.

119. Video: Free Trade—The Price Paid (Part Two) (Marcus Morrell 2005), *available at* http://www.globalissues.org/video/730/lorriwallach/pricepaid2. Lori Wallach, the Director of Public Citizen's Global Trade Watch, further labels these agreements a "Trojan horse" because the agreements contain entire packages of economic policies hidden inside "the good name of trade." Video: Free Trade—The Price Paid (Part One) (Marcus Morrell 2005), *available at* http://www.globalissues.org/video/729/lorriwallach/pricepaid1. Senator Ernest Hollings from South Carolina one said, "free trade is like dry water. There is no such thing." David E. Rosenbaum, *Free Trade Is Like Dry Water, Y'All*, N.Y. TIMES, Dec. 19, 2004.

120. William Greider, *The Real Cancún: WTO Heads Nowhere*, THE NATION, Sept. 22, 2003, at 11.

121. *Id.* (internal quotation marks omitted) (stating that multinational corporate interests have hijacked free trade); *see also* Arvind Panagariya & Jagdish N. Bhagwati, *Bilateral Trade Treaties Are a Sham*, FIN. TIMES (London), July 14, 2003, at 17 (describing the distortion of free trade principles by corporate lobbying interests).

labor and minimal regulation, overall downward pressure on wages, unsafe products, and harm to subsistence farmers in developing countries.[122] Opponents also contend that the current free trade framework weakens governmental power and increases corporate power.[123]

The dramatic opening of worldwide markets, accompanied by rapid technological change, has indeed altered the balance of global economic power. Recent advances in physical transportation enable a traveler or a product to reach almost any point on the globe within hours or days instead of months or years. Moreover, virtual travel is nearly instantaneous due to advances in communications technology. When people, products, and information can globe-trot, money, capital, and companies can do the same. Burgeoning transnational corporations are taking over the lead roles in the global economic drama, to some degree displacing both national governments and international institutions.[124] In fact, some of these corporations surpass the power, influence, and wealth of many national governments.[125]

Thus, transportation and communication advances, international monetary and loan programs, free trade, and the rise of transnational corporations—in synergistic combination—have created a truly interconnected worldwide economy. Before getting

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122. *See, e.g.*, Anup Shah, Free Trade and Globalization: Criticisms of Current Forms of Free Trade, http://www.globalissues.org/TradeRelated/FreeTrade/Criticisms.asp?p=1 (last visited Mar. 23, 2008); *Bill Moyers Journal: Bill Moyers Talks with Lori Wallach* (PBS television broadcast June 22, 2007), *available at* http://www.pbs.org/moyers/journal/06292007/transcript1.html [hereinafter *Bill Moyers*].

123. *Bill Moyers*, supra note 122; *see also* Greider, *supra* note 120, at 12; Sheshabalaya, *supra* note 92; sources cited, *supra* note 119.

124. The United Nations describes transnational corporations as enterprises comprising entities in more than one country which are linked, by ownership or otherwise, such that one or more of them can exercise a significant influence over the others. United Nations Conference on Trade and Development, Transnational Corporations (TNC), http://www.unctad.org/templates/Page.asp?intItemID=3148&lang=1&frmSearchStr=multinational%20corporations&frmCategory=all&section=whole (last visited Mar. 23, 2008).

125. *See* SARAH ANDERSON & JOHN CAVANAGH, TOP 200: THE RISE OF GLOBAL POWER ii (2000). The Institute for Policy Studies, a non-profit entity, released a study in the year 2000 concluding as follows: Of the world's 100 largest economic entities, fifty-one were corporations and forty-nine were countries. *Id.* The combined sales of the world's top 200 corporations were bigger than the combined economies of all countries except for the biggest ten. *Id.* These top 200 companies accounted for over a quarter of economic activity on the globe while employing less than one percent of its workforce. *Id.* U.S. corporations dominated the top 200, with eighty-two slots (forty-one percent of the total), and Japanese firms were second, with forty-one slots. *Id.*; *see also* UNITED NATIONS CONFERENCE ON TRADE & DEV., WORLD INVESTMENT REPORT 2007: TRANSNATIONAL CORPORATIONS, EXTRACTIVE INDUSTRIES AND DEVELOPMENT 7 (2007), *available at* http://www.unctad.org/en/docs/wir2007overview_en.pdf (ranking the top twenty-five transnational corporations by value of foreign assets in 2005; General Electric ranks number one, and other U.S. companies on the list include General Motors, ExxonMobil, Ford, Chevron, Procter & Gamble, and ConocoPhillips).

back to the matter of water, it is important to assess the winners and losers in this current round of globalization.

B. The Rich Get Richer, the Poor Get Poorer

Economic globalization has the potential, at least in theory, to be a rising tide that floats all boats.[126] Free trade was supposed to level the competitive playing field and open new markets everywhere around the world to goods from everywhere else. National borders that are porous to international investment and transnational business could invite economic growth and employment into countries with insufficient local capital.

However, that does not seem to be happening. Instead, porous borders attract businesses and investors seeking the highest rates of return in the form of lowest operational costs, such as low wages and minimal governmental regulation, wherever they can find them.[127]

The real winners in the new global economy are the transnational corporations. These corporations benefit from the economic liberalization imposed by the so-called free trade regimes of the past two decades. They also benefit from the conditions built into the programs of the World Bank designed to westernize the economies of developing nations to attract investors and businesses. Transnational corporations also benefit from the activities of the International Monetary Fund to promote a more seamless international currency system.

Thus, while the world shrinks, economic inequality grows.[128] The wealthiest 20 percent of the highest-income countries account for 86 percent of private consumption, while the poorest 20 percent accounts for 1.3 percent of the consumption.[129] These consumption patterns are not surprising, since the richest ten percent of the world's people are the beneficiaries of more than half of the total world income.[130] Looking at this lopsided distribution from yet another angle, "[e]ighty per cent of the world's gross domestic product belongs to the [one] billion people" who live in the developed world, while the five billion people who live in the developing world share

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126. *See generally* CONG. BUDGET OFFICE, 108TH CONG., ECONOMIC AND BUDGET ISSUE BRIEF: THE PROS AND CONS OF PURSUING FREE-TRADE AGREEMENTS (2003) (describing the theoretical potential benefits of free trade).

127. *See* Shah, *supra* note 122; Sheshabalaya, *supra* note 92.

128. *See* DEP'T OF ECON. & SOCIAL AFFAIRS, *supra* note 9, at 5.

129. *Id.* at 85. Some 2.8 billion people live on the equivalent of less than $2 a day in U.S. dollars. *Id.*

130. *Id.* at 44.

the remaining twenty percent.[131]

Household consumption rates have increased at an average annual rate of 2.3 percent in industrialized countries over the past twenty-five years, while in Africa, the rate has *decreased* by 20 percent during this same time period.[132] Even within the countries experiencing an increase, the improved purchasing power is not distributed equitably.[133]

The United Nations has concluded that the socioeconomic situation in the world today is characterized by "rampant inequality" because globalization's material benefits have largely accrued to the wealthy strata in the industrialized countries and to a "new elite" in the developing countries.[134] In other words, the rich get richer, and the poor get poorer.

C. The Perils of Global Inequity: Mind the Gap

Many people may be moved to action simply by the inherent unfairness of the widening gap between the world's rich and poor countries and people. For instance, the United Nations calls the growing inequality a case of "pervasive social injustice."[135] However, if not for humanitarian reasons, the world's well-off countries (particularly the United States) should be very concerned about the consequences of such pervasive and increasing inequities from a self-interested perspective; it is important to "mind the gap" for a number of reasons. [136]

First, instantaneous global communication means that the gap is no secret. The new transparency brings the haves and have-

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131. *Id*. at 1. But even these lopsided statistics do not tell the whole story. *See* Ronald Bailey, *The Secrets of Intangible Wealth*, WALL ST. J., Sept. 29, 2007, at A9 (describing the findings of a World Bank Study that in addition to tangible wealth differences, a resident of the U.S. enjoys intangible wealth of $418,000 produced by factors such as clear property rights, an effective judiciary, etc., while per capita intangible wealth in Mexico is only $34,500).

132. DEP'T OF ECON. & SOCIAL AFFAIRS, *supra* note 9, at 85.

133. From the 1950s through the 1970s, inequality within many countries seemed to be decreasing, but since the 1980s, that trend has stalled or reversed. *Id*. at 47. This trend of worsening internal inequality is true even within many large industrialized countries. *Id*. at 48.

134. *Id*. at 27, 85.

135. *Id*. at 10. *See also* Sheshabalaya, *supra* note 92 (calling it "a moral imperative" that China and India, containing about forty percent of the world's population, should also "have somewhere close to a similar share of its income" and thus noting with approval the recent growth of those two countries' economies as "a return towards global equity"); Branko Milanovic, *Global Inequality: What It Is and Why It Matters?* (Dep't of Econ. & Social Affairs, Working Paper No. 26, 2006), *available at* http://www.un.org/esa/desa/papers/2006/wp26_2006.pdf (citing several proponents of the view that global inequality is an ethical issue).

136. *See* Milanovic, *supra* note 135, at 13-14 (discussing pragmatic reasons why global inequality may matter).

nots together face-to-face, at least virtually. Even the world's poorest and most destitute people have instant access to information about the rest of the world. For example, a Maasai tribesman in Africa, who lives on just over a gallon of water a day, can stop by a village school and view a Dasani advertisement on a computer screen.[137] For most people, such exposure to the material comforts and conspicuous consumption of the world's wealthy residents undoubtedly increases the desire, if not the means, to be part of that world.[138] Globalization means that instead of using a "national yardstick" to compare one's income or well-being with that of others, people are now able to make international and global comparisons.[139] The greater a person's sense of "relative deprivation" (how much less well-off that person feels compared to others), the greater the potential for social tension and even violent conflict.[140] Just as shared prosperity is a premise for peace, the opposite is also true. Vast economic inequity is a premise for conflict.

When entire populations feel that they have not been invited to the prosperity party, the consequences could be serious for the well-to-do. The United States, as the most "conspicuous consumer" of all, is a particular target of criticism.[141] In a 2005 survey, several groups of American opinion leaders identified America's wealth, power, and materialism as a major reason for discontent with the U.S. around the world.[142]

Moreover, the depth of discontent is considerable. The Pew Research Center for the People and the Press has conducted extensive international surveys for the past five years to assess America's reputation and image throughout the world.[143] The surveys

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137. *See* Maasai Education Discovery, Images & Media, http://www.maasaieducation.org/imagesmedia/Images.htm (last visited Mar. 23, 2008) (showing pictures of Massai tribespeople accessing the internet). Maasai Education Discovery is a nonprofit entity that builds schools for the Maasai Tribe in eastern Africa. Maasai Education Discovery, Overview, http://www.maasaieducation.org/about/what-is-med.htm (last visited Mar. 23, 2008).

138. DEP'T OF ECON. & SOCIAL AFFAIRS, *supra* note 9, at 87 ("[A]s developing countries move forward, many of the resident poor will aspire to the lifestyles of the more affluent in developed countries.")

139. Milanovic, *supra* note 135, at 13.

140. DEP'T OF ECON. & SOCIAL AFFAIRS, *supra* note 9, at 91 (describing the negative consequences of the pressure to consume material goods, including pushing youth in areas with few other prospects toward violent crime and the drug trade); *see also* Milanovic, *supra* note 135, at 13 (discussing "the tension created by the observation of . . . much greater wealth").

141. *Cf.* THORSTEIN VEBLEN, THE THEORY OF THE LEISURE CLASS 68 (New ed. 1912) (coining the term "conspicuous consumption" to describe the phenomenon of displaying wealth with material goods and other consumption and the emulation of the consumption patterns of wealthier people by those less wealthy).

142. PEW RESEARCH CTR. FOR THE PEOPLE & THE PRESS, AMERICA'S PLACE IN THE WORLD 2005: OPINION LEADERS TURN CAUTIOUS, PUBLIC LOOKS HOMEWARD 6 (2005).

143. Andrew Kohut, President of the Pew Research Center, Global Attitudes: Challenges for the Next Administration? (Sept. 17, 2007) (transcript available at

found that between 2002 and 2003, "the image of the United States had plummeted all around the world."[144] The 2007 survey found the approval ratings of the U.S. down in twenty-five out of thirty-three countries—"in some places they were very, very, very far down."[145] For instance, in Germany only 30 percent of those surveyed viewed the United States favorably, compared to 78 percent in 2002; in Spain, the favorability rating was only 20 percent in the most recent survey; and in Turkey, the rating had dropped from 55 to 9 percent over five years.[146]

Of course, America's high standard of material wealth is not solely responsible for the nosedive in our international reputation. Rather, American foreign policy positions, most pointedly the invasion of Iraq, have affected our image directly, fueling the criticism that we have become less of a leader—or even a team player—and more of an isolated bully.[147] Lacking the support of the United Nations, the U.S. justified the invasion of Iraq with a creative but questionable interpretation of the international law principle of "preemptive self-defense," which claimed that Iraq posed a potential threat to American security and that its invasion was part of the War on Terror.[148]

But many people around the world (as well as inside the U.S.) have come to believe that the Iraq war—and America's foreign policy in general—is driven by the demands of our country's levels of material consumption rather than by legitimate national defense concerns or even a genuine desire to export democracy.[149] From

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http://www.cfr.org/publication/14286/global_attitudes.html (reporting the survey results in a speech to the Council on Foreign Relations).

144. *Id*.

145. *Id.*

146. *Id.*

147. *See, e.g*., PEW RESEARCH CTR. FOR THE PEOPLE & THE PRESS, ERODING RESPECT FOR AMERICA SEEN AS MAJOR PROBLEM: FOREIGN POLICY ATTITUDES NOW DRIVEN BY 9/11 *AND* IRAQ (2004) [hereinafter PEW, IRAQ]; *see also* Daniel W. Drezner, Assoc. Professor of Int'l Politics, Fletcher Sch. of Law & Diplomacy, The New New World Order (Feb. 26, 2007) (transcript available at http://www.cfr.org/publication/12719/the_new_new_world_order.html?breadcrumb=%2Fi) (speech to the Council on Foreign Relations discussing the view of the Bush Administration's foreign policy as "a belligerent, unilateralist foreign policy course of action" and the perception it generates that the U.S. is "doing things for the wrong reasons").

148. *See, e.g.*, Anthony Dworkin, Crimes of War Project, Iraq and the "Bush Doctrine" of Pre-Emptive Self-Defence (Aug. 20, 2002), http://www.crimesofwar.org/print/expert/bush-introBush-print.html (summarizing a discussion of several international law experts about the limited applicability of the doctrine as justification for attacking another country).

149. In January 2006, Secretary of State Condoleezza Rice announced a "global repositioning" plan for the State Department labeled "Transformational Diplomacy." *See* U.S. Department of State, Transformational Diplomacy (Jan. 18, 2006), http://www.state.gov/r/pa/prs/ps/2006/59339.htm. Although the announcement discussed "freedom for all people" and self-determination as policy goals, the plan also suggested close cooperation between the State Department and the military to promote national security interests.

the Gulf War in the early 1990s to the invasion of Iraq in 2003, a chorus of critics has accused the U.S. of dressing up a sow's ear—the desire to keep oil flowing from the Middle East—in a silk purse of rhetoric about the war on terror and spreading freedom around the world.[150] In fact, the critics can find support for this position within the U.S. government itself.[151] In that way, resentment of American material wealth and disproportionate resource use has become closely entangled with world reaction to our conduct of foreign affairs, together darkening the tarnish on our international image.

Furthermore, the Afghanistan and Iraq invasions were not the first instances of tough talk and going-it-alone. For several years, the United States has thumbed its nose at the United Nations: threatening to withdraw from the U.N. completely;[152] withholding dues;[153] withdrawing from a subsidiary body, the United Nations Educational, Scientific, and Cultural Organization (UNESCO);[154]

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150. *See supra* text accompanying notes 142-147.

151. For example, in a press conference, Ari Fleischer, then-White House Press Secretary, answered a question about American energy use as follows: Question: "Does the President believe that, given the amount of energy Americans consume per capita, how much it exceeds any other citizen in any other country in the world, does the President believe we need to correct our lifestyles to address the energy problem?" Answer: "That's a big no. The President believes that it's an American way of life, and that it should be the goal of policy makers to protect the American way of life. The American way of life is a blessed one." Mr. Fleischer went on to say "[T]he President also believes that the American people's use of energy is a reflection of the strength of our economy, of the way of life that the American people have come to enjoy. And he wants to make certain that a national energy policy is comprehensive, that includes conservation, includes a way of allowing the American people to continue to enjoy the way of life that has made the United States such a leading nation in the world." The White House, Press Briefing by Ari Fleischer (May 7, 2001), http://www.whitehouse.gov/news/briefings/20010507.html; *see also* Donald H. Rumsfeld, Sec'y of State, New Realities in the Media Age: A Conversation with Donald Rumsfeld (Feb. 17, 2006) (transcript available at http://www.cfr.org/publication/9900/new_realities_in_the_media_age.html) ("[T]he enemy is determined to prevent that country [referring to Iraq] from having a representative government. For them to be able to control that real estate with that oil and that water and that history and use it as a haven for terrorists, to establish a caliphate, which is what their announced interest and goal is in that country, and use it as a base would put in jeopardy all the neighborhood and much of the world.")

152. *See, e.g.*, United Nations Withdrawal Act of 1995, H.R. 2535, 104th Cong. (1995); American Sovereignty Restoration Act of 1997, H.R. 1146, 105th Cong. (1997). As recently as April 2003, Republican presidential candidate Ron Paul, a Congressman from Texas, pushed to bring a withdrawal bill directly to the floor of the House, bypassing committee hearings. Cheryl K. Chumley, The New World Disorder: New Push to 'Get U.S. out of U.N.' (April 24, 2003), http://www.worldnetdaily.com/index.php?fa=PAGE.printable&pageId=18453.

153. *See* Paul Lewis, *U.S. and U.N.: Stating Case for Big Role*, N.Y. TIMES, July 28, 1988, at A7 (describing withholding of U.N. dues during the Reagan administration); Elaine Sciolino, *Walters Is Uneasy About U.S. Cutbacks at U.N.*, N.Y. TIMES, Feb. 1, 1987, at A8 (same).

154. *See* Lewis, *supra* note 153 (describing how "the Reagan Administration has shaken up the United Nations system, withdrawing from Unesco . . . and rejecting the World Court's jurisdiction" and withholding dues).

and sending an ambassador to the U.N. who was openly critical of the organization.[155] The U.S. has also refused to sign a number of significant international treaties, further isolating itself from the world community.[156]

Ironically, the same transnational corporations who are the main beneficiaries of globalization benefit from the current political situation as well.[157] In other words, even though the image of the United States is in tatters around the world, some of our own corporate citizens continue to thrive and prosper in spite of—and indeed because of—the damage.

By 2006, America's critics felt sufficiently emboldened for President Hugo Chavez of Venezuela to deliver a speech to the full United Nations General Assembly in which he called President Bush "the devil" to applause from many in the audience.[158] I do not mean to credit Chavez's statements, but the fact that his

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155. *See* Elizabeth Bumiller & Sheryl Gay Stolberg, *President Sends Bolton to U.N.; Bypasses Senate*, N.Y. TIMES, Aug. 2, 2005, at A1. In August 2005, President Bush appointed an outspoken critic of the United Nations, John Bolton, as our UN Ambassador. *Id.* Bolton was a controversial appointment, not only because of his opinions, but also because of his reputation as someone lacking diplomatic skills; indeed, the president used a recess appointment to name Bolton, thus avoiding a Senate confirmation hearing. *Id.*

156. Barbara Crossette, *Washington Is Criticized for Growing Reluctance to Sign Treaties*, N.Y. TIMES, Apr. 4, 2002, at A5.

157. *See, e.g.*, BBC News, Profile: Blackwater USA (Oct. 8, 2007), http://news.bbc.co.uk/go/pr/fr/-/2/hi/americas/7000645.stm (describing the lucrative work done in Iraq by Blackwater and reporting that government contracts make up ninety percent of Blackwater's revenues); CNN.com, Halliburton Iraq Contract Expands (May 7, 2003), http://edition.cnn.com/2003/BUSINESS/05/07/sprj.nitop.haliburton (describing Halliburton, a company formerly headed by Vice President Dick Cheney which was awarded a contract open-ended in time limit and dollar amount); *see also* U.S. GOV'T ACCOUNTABILITY OFFICE, REBUILDING IRAQ: STATUS OF COMPETITION FOR IRAQ RECONSTRUCTION CONTRACTS 18-20 (2006), *available at* http://www.gao.gov/new.items/d0740.pdf (listing numerous multinational companies receiving multimillion dollar contracts for work in Iraq, including Raytheon Systems Development Company, Daimler Chrysler AG, Dyncorp International LLC, and Blackwater Security Consultants, Inc.).

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> Yesterday, the devil came here. . . . And it smells of sulfur still today . . . . [T]he president of the United States, the gentleman to whom I refer as the devil, came here, talking as if he owned the world. . . . [H]e came . . . to try to preserve the current pattern of domination, exploitation and pillage of the peoples of the world.

President Hugo Chavez, Remarks at the U.N. General Assembly (Sept. 20, 2006) (transcript available at http://www.washingtonpost.com/wp-dyn/content/article/2006/09/20/AR2006092000893.html). CNN further reported that Chavez said after the speech, " 'The United States empire is on the way down and it will be finished in the near future, for the good of all mankind . . . ,' " that "the U.S. government was the 'first enemy' of its people," and "that Bush is not a legitimate president because he 'stole the elections' . . . [and] 'is therefore a dictator.' " CNN.com, Chavez: Bush 'Devil'; U.S. 'on the way down', http://www.cnn.com/2006/WORLD/americas/09/20/chavez.un/index.html (last visited Mar. 24, 2008). A year before, Chavez made anti-American comments at a United Nations meeting, receiving "plaudits from Third World envoys" and "the loudest burst of applause for a world leader." Colum Lynch, *Chavez Stirs Things up at the U.N.: Venezuelan Leader Wins Cheers with Rant Against U.S.*, WASH. POST, Sept. 17, 2005, at A14.

speech was received favorably by many of the delegates should give pause.[159] And, of course, his comments were instantly flashed around the world.

There we have it: the world has changed dramatically in the past fifty years. Whether the changes have been for better or worse depends on who you are, where you live, and where your country ranks in the new global pecking order. The United States and other developed countries need to mind the gap and its political repercussions and adjust to the new world order in a constructive rather than destructive way. In particular, at this moment in history, the U.S. would be wise to think of tangible, proactive ways to repair the damage to its international relations.

D. What's Water Got to Do with It?

Although I warned of a detour at the beginning of Part III, alert readers may still be skeptical about whether the detour really leads to the intended destination. An Article which began with a review of world water problems has meandered through discussions of globalization, the internet, free trade, the United Nations, U.S. foreign policy, and the President of Venezuela, only to end up in the swamp of the Iraq war. What does water have to do with all that? As discussed earlier, water (or the lack thereof) is a critical foundational element of the global inequity in health and wealth. Addressing the world's water woes is a key first step required to address those inequities. Water is therefore both part of the problem and part of the solution.

In chemistry, water is known as the "universal solvent" because of its capacity to dissolve more substances than any other liquid.[160] Water is also unique for its chemical neutrality; it has a neutral pH, being neither an acid nor a base.[161] Finally, water puts out fires both literally and figuratively; "fight fire with water" is an alternative problem-solving approach to "fight fire with fire."[162] At the risk of stretching yet more water metaphors to the breaking point, I suggest that perhaps water can also serve as a

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159. *Compare* Niall Ferguson, *The New Demagogues*, WASH. POST, Dec. 3, 2006, at B1 (including Chavez in a group of contemporary world leaders similar in their inflammatory rhetoric and indefensible positions to Adolf Hitler), *with* Glenn Kessler, *Anger at U.S. Policies More Strident at U.N.*, WASH. POST, Sept. 24, 2006, at A23.

160. United States Geological Survey, Water Properties, http://ga.water.usgs.gov/edu/waterproperties.html (last visited Mar. 24, 2008).

161. *Id.* ("Pure water has a neutral pH of 7, which is neither acidic nor basic.")

162. Posting of Damion to Zen of Design, http://www.zenofdesign.com/?p=192 (Jan. 15, 2005, 22:31 EST) (attributing the quote to the Marketing Guru, Howard Gossage).

universal solvent, a neutral substance, and a fire extinguisher in the political world. The next Part explores these possibilities.

IV. A WATER AGENDA

What follows are a few preliminary suggestions for bringing world water problems to the front and center of American policy. My goal is to illustrate that a basic and straightforward commitment to a program of "water aid" by the United States would go a long way toward addressing the world's water woes, while also being good American foreign policy. The proposals use water as a figurative solvent to dissolve some of the most egregious global inequities in health and welfare, as a neutral centerpiece of America's foreign policy, and as a form of foreign aid that can douse rather than fan the flames of anti-American sentiment.

A. Make Water Aid a Key Component of U.S. Foreign Aid

1. Reprise: Just Add Water

A recent study prepared for the University of Copenhagen's Institute of Economics examined global foreign aid trends during the nineteenth and twentieth centuries, including changes in the amount of aid, composition, purposes, and quality.[163] The study reached some interesting conclusions that are pertinent to this discussion. The researchers found that the total volume of foreign aid began decreasing in the early 1990s, reversing the historically upward trend; in particular, food aid has decreased over recent decades, though hunger is still widespread.[164] The decrease is in spite of a United Nations resolution adopted more than thirty-five years ago committing the developed countries to commit 0.7 percent of their gross national product to official development assistance for the developing countries.[165] Furthermore, this shrinking pot of aid increasingly has been filled with contributions from private donors rather than from governments.[166] The study also concluded that, while concern for the development needs of the recipients determined the allocation and quality of aid for some donors, commer-

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163. PETER HJERTHOLM & HOWARD WHITE, SURVEY OF FOREIGN AID: HISTORY, TRENDS AND ALLOCATION (2000).

164. *Id*. at 2-3.

165. *See* Anup Shah, Sustainable Development: US and Foreign Aid Assistance, http://www.globalissues.org/TradeRelated/Debt/USAid.asp?p=1 (last visited Mar. 26, 2008) (discussing G.A. Res. 2626 (XXV), ¶ 42, U.N. Doc. A/8124 (Oct. 24, 1970) and noting the U.S. and others' continuous failure to meet this target ever since).

166. *Id.*; *see also* HJERTHOLM & WHITE, *supra* note 163, at 19-23.

cial and foreign policy goals instead have shaped the aid of many larger donors.[167]

Significantly, the United States consistently appears at the very bottom of nearly every "quality" ranking of foreign aid in the Copenhagen study. These rankings include the ratio of aid to donor gross national product;[168] the amount of "untied" aid;[169] and the degree to which recipient needs (such as the degree of poverty) rather than donor interests (such as security goals) determine the allocation of aid dollars.[170]

Since that study was completed, the United States has actually increased its foreign aid budget.[171] Furthermore, in early 2006, Secretary of State Condoleezza Rice announced a complete restructuring of foreign aid as part of a larger new State Department initiative christened "transformational diplomacy."[172] However, even with this recent reorganization and bump in funding, the U.S. has a long way to go to improve the quality and effectiveness of its foreign aid, especially concerning the humanitarian impact of American aid programs.

Critics of the State Department's new effort say that it still concentrates way too much of the foreign aid budget on military aid and on a short list of countries that are considered strategic allies for the United States, regardless of the real needs for assistance around the world.[173] Although fifty-one percent of the total

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167. HJERTHOLM & WHITE, *supra* note 163, at 2. Recipient needs and donor goals are not necessarily in contradiction, as the authors point out. *Id*. Nor should we expect donor countries to spend *against* their interests. *Id*.

168. *Id.* at 23-25. The Scandinavian countries rank at the top in terms of percentage giving. *Id.* at 23-24. Indeed, the authors state that based on their decreasing percentage amounts of aid, the United States (and Italy) "appear to be disengaging from the aid business altogether." *Id*. at 24. They further note that "[t]his possibility was indeed actively discussed in the US but rejected," but they do not offer any documentation for that statement. *Id*. at 24 n.18. "Disengagement" seems a rather strong word, since the U.S. is at the top in terms of absolute dollars, even though it is low by percentage of GDP.

169. *Id.* at 32-37. Aid is "tied" when it comes with numerous strings attached, such as requirements to purchase aid-financed goods from the donor country, often at premium price mark-ups, thus hampering rather than helping the true economic development of the recipient country. *Id*. Aid has also been increasingly conditioned on the recipient country's alteration of its economic policies to more closely mirror the western economies. *Id*.

170. *Id.* at 40-43.

171. U.S. DEPT. OF STATE, SUMMARY AND HIGHLIGHTS: INTERNATIONAL AFFAIRS FUNCTION 150 FISCAL YEAR 2008 BUDGET REQUEST 1-3 (showing increase from about $31.4 billion in 2006 to $36.2 billion for 2008).

172. *See* U.S. Department of State, *supra* note 149 (describing "global repositioning" of diplomats and redeployment of funds).

173. *See* Robert McMahon, Council on Foreign Relations, Transforming U.S. Foreign Aid (May 3, 2007), http://www.cfr.org/publication/13248/transforming_us_foreign_aid.html?breadcrumb=%2. As an example, Israel and Egypt have been the largest single country recipients of American aid for several decades. In the 2008 proposed budget, they were joined in the top five by Afghanistan, Iraq, and Pakistan. SAMUEL BAZZI ET AL., CTR. FOR GLOBAL DEV., BILLIONS FOR WAR, PENNIES FOR THE POOR: MOVING THE PRESIDENT'S FY2008

proposed budget for 2008 was designated for reconstruction and humanitarian aid, the fact that this spending is primarily targeted at Afghanistan and Iraq lends a certain irony to that commitment, since U.S. actions have contributed to those countries' needs for aid.[174] Another criticism is that the restructuring, though with the laudable intent of better coordinating various aid programs, inappropriately subordinates humanitarian aid programs to the State Department's diplomatic and military goals.[175] The fact that the new program was a key component of President Bush's National Security Strategy underscores this concern.[176]

The State Department's transformational diplomacy initiative may indeed represent an improvement over recent U.S. foreign aid spending in that the aid programs will be better coordinated and strategically aligned with other policy objectives. However, even a cursory review of the plan and the budget requested to support it reveals several critical omissions pertinent to addressing the most acute human needs around the world, especially water-related needs.

First, though the overall proposed aid budget was increased, the increases in some areas were partially offset by decreases in others, notably those programs related to fighting poverty and improving children's health.[177] One review declared the traditional poverty-alleviation programs the "big losers" in the new plan, with the lion's share of foreign aid going to only ten countries consid-

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BUDGET FROM HARD POWER TO SMART POWER 15 (2007).

174. *See* BAZZI ET AL., *supra* note 173, at 7; Shah, *supra* note 165.

175. *See* LARRY NOWELS & CONNIE VEILLETTE, CRS REPORT FOR CONGRESS: RESTRUCTURING U.S. FOREIGN AID: THE ROLE OF THE DIRECTOR OF FOREIGN ASSISTANCE 11 (2006); Shah, *supra* note 165, at 29-30. Secretary Rice and others tried to assuage these concerns by stressing that the Director of USAID would continue to enjoy considerable independence even while being elevated to Deputy Secretary of State. Independent or not, the new position got off to a rough start when the first director, Randall Tobias, was forced to resign after being linked to a prostitution service in Washington, D.C. Robert McMahon, Council on Foreign Relations, Foreign Aid Angst (May 3, 2007), http://www.cfr.org/publication/13259/foreign_aid_angst.html?breadcrumb=%2Fissue%2F (also noting the irony that one of the programs in Tobias's portfolio concerned policy against prostitution and sex trafficking). This embarrassment occurred at the same time as Paul Wolfowitz's troubles at the World Bank. *Id.*

176. THE WHITE HOUSE, THE NATIONAL SECURITY STRATEGY OF THE UNITED STATES OF AMERICA 44 (2006) (describing the State Department/USAID realignment to ensure that foreign aid is used to meet foreign policy objectives).

177. BAZZI ET AL., *supra* note 173, at 5. The initial version of the restructured aid plan apparently did not even include the word "poverty," and it was only after that omission was criticized that explicit mention of poverty was added. Randall L. Tobias, Director of U.S. Foreign Assistance and USAID Administrator, A Strategic Approach to Addressing Poverty and Global Challenges: We Are in This Together, Address at the Center for Strategic and International Studies (Feb. 5, 2007) (transcript available at http://www.state.gov/f/releases/remarks2007/80083.htm) ("I am grateful to those who communicated to me or to my staff that the transformational diplomacy goal needed to explicitly include the word 'poverty.' I hope our decision to include poverty is an indication to you that we are listening . . . .").

ered important to the "global wars" against both terrorism and drugs.[178]

Harking back to the earlier discussion in Part II above, I propose a universal, neutral, and soothing fix for the misallocations in the foreign aid budget: just add water. Although this suggestion may at first sound terribly naïve, the following discussion attempts to show otherwise.

2. Water: The Universal Solvent

Providing clean water and adequate sanitation to the nearly 2.5 billion people in the world who do not have these basic necessities of life ought to be a key component of American foreign aid policy. Why? First, because it is the right thing to do—water and sanitation are universal human needs, and thousands of children die everyday because these needs go unmet. The moral obligation to help is just as compelling as offering assistance after an earthquake or a tsunami, which the American public and even the American government have been willing to do.[179] The beauty of committing to a universal goal of providing safe drinking water and adequate sanitation is that it would address not just an acute crisis, but a chronic one.

In fact, the United Nations and many individual countries have already committed to this universal goal as part of the Millennium Development Goals (MDGs).[180] The MDGs include a water and sanitation target of reducing by half the number of people in the

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178. BAZZI ET AL., *supra* note 173, at 3-10 (describing decreases of 31 percent and 7 percent in the Development Assistance and Child Survival and Health Accounts on an already low base of only 10 percent of total U.S. assistance, compared to the increases in military and defense-related spending and other strategic aid and declaring the proposed foreign aid budget "mainly a new and improved bookkeeping exercise"). The one notable exception to the decrease in health-related spending is an increased budget for HIV/AIDS programs, primarily in Africa. *Id*. at 6.

179. The White House points to these examples of post-disaster assistance as recent high points of America's humanitarian aid. *See* U.S. DEPT. OF STATE, *supra* note 171, at 28; *see also* Shah, *supra* note 165 (noting bumps in aid for tsunami relief and other emergencies).

180. United Nations, UN Millennium Development Goals, http://www.un.org/ millenniumgoals/ (last visited Mar. 26, 2008). The MDGs consist of eight broad goals supported by more specific numerical benchmarks:

(1) Eradicate extreme poverty and hunger
(2) Achieve universal primary education
(3) Promote gender equality and empower women
(4) Reduce child mortality
(5) Improve maternal health
(6) Combat HIV/AIDS, malaria, and other diseases
(7) Ensure environmental sustainability
(8) Develop a global partnership for development

Id.

world without safe drinking water and basic sanitation by 2015.[181] Although the United States originally signed on to the eight broad goals, the U.S. later objected to the U.N. Secretariat's translation of the goals into specific numerical targets.[182] The U.S. thus put itself in the position of appearing to oppose the goals.[183] Instead, the U.S. ought to take a very public stance supporting specific components of the MDGs, particularly those that relate to children's health and welfare. Support of clean water for children is politically unassailable, whereas an official—or even perceived—position of non-support is indefensible. Furthermore, once having declared that support, the U.S. should put its money where its mouth is.

The United States currently contributes less than 0.2 percent of gross national income to all foreign aid; only a small—and diminishing—fraction of that is humanitarian aid of all kinds.[184] Calculated on a per capita basis, American governmental aid amounts to only thirteen cents per capita per day; private giving by Americans adds another five cents per person per day.[185] An increase of just pennies a day in the U.S. foreign aid budget, if this increase were targeted directly toward water aid, could have a tremendous global impact. The expenditures necessary for safe drinking water and improved sanitation are well within these ranges. After all, economist Jeffrey Sachs believes that his Millennium Villages Project can go so far as to eliminate extreme poverty in Africa by spending just $110 per person per year for five years (equivalent to thirty cents per day per person).[186] Water is

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181. WORLD HEALTH ORG. & UNICEF, MEETING THE MDG DRINKING WATER AND SANITATION TARGET: A MID-TERM ASSESSMENT OF PROGRESS 5 (2004), *available at* http://www.who.int/water_sanitation_health/monitoring/jmp2004/en/.

182. *See* Warren Hoge, *Bolton Makes His Case at U.N. for a New Focus for Aid Projects*, N.Y. TIMES, Sept. 1, 2005, at A4 (describing Ambassador Bolton's objection to codification of the millennium development goals into numerical targets and timetables).

183. *Id.* (quoting Jeffrey D. Sachs as saying "The United States came in a few days ago essentially to try to gut this document. Their purpose is clear: to try to eliminate the momentum behind the millennium development goals and to wriggle free of the commitments they have made.").

184. *See* Shah, *supra* note 165, at 11 (reporting data from OECD for 2003 to 2006).

185. David Roodman et al., Center for Global Development, U.S. Aid, Global Poverty, and the Earthquake/Tsunami Death Toll, Center for Global Development (Dec. 29, 2004), http://www.cgdev.org/content/opinion/detail/2960/. This compares to $1.02 per person per day given by the Norwegian government and twenty-four cents per day in Norwegian private giving. *Id.*

186. *See* Munk, *supra* note 10; Millennium Promise, Millennium Villages: An Affordable Solution, http://www.millenniumpromise.org/site/PageServer?pagename=mv_unlock (last visited Mar. 26, 2008) [hereinafter Millennium Promise, Affordable Solution]. It is worth noting that the Millennium Promise organization, of which the Millennium Villages Project is the "flagship initiative," has embraced the Millennium Development Goals, regardless of the official U.S. government position. The project's mission "is to achieve the Millennium Development Goals . . . in Africa by 2015." Millennium Promise, Who We Are,

only one of the Project's eight different areas of work, accounting for just $13 of the total (less than four cents a day per person).[187] The Millennium Villages Project cost figures are consistent with other estimates that predict that water aid would prove to be both a bargain and a wise investment. Although different groups have prepared a range of estimates for the cost of providing water and sanitation worldwide, the average of this range amounts to only about 6.7 billion dollars (US dollars) annually over a 15-year period in order to meet the MDG water and sanitation goal.[188] On a per capita basis, these amounts work out to less than $10 per person in many countries.[189] Such relatively modest investments can provide huge payoffs. The World Health Organization estimated benefits amounting to a seven-fold return on costs for meeting the MDG targets on water and sanitation.[190] The benefits include disease reduction, time savings, increased school attendance, and gains in working days, all contributing to significant overall improvements in health, well-being, and economic productivity.[191]

Water and sanitation investments have such high payoff because it is possible to get significant bang for the buck from quite simple, relatively low-tech improvements. The billions of people without safe drinking water and adequate sanitation do not necessarily need trillion-dollar water supply systems and first-world indoor plumbing to see significant improvement in health and welfare. The developed world has constructed centralized water systems that supply water directly to the homes of hundreds, thousands, and even millions of people. This water is clean enough to drink, but we also use it to flush toilets, water lawns, and wash cars. However, this level of water development is not required to obtain the tremendous benefits described above. As one observer said, "[a]ccess to clean water doesn't mean an unlimited supply flowing from a shiny chrome tap."[192] Instead, simple drinking wa-

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http://www.millenniumpromise.org/site/PageServer?pagename=about (last visited Mar. 26, 2008).

187. *See* Millennium Promise, Affordable Solution, *supra* note 186; *see also* Millennium Promise, Millennium Villages: Bundling Critical Interventions, http://www. millenniumpromise.org/site/PageServer?pagename=mv_interventions (last visited Mar. 26, 2008).

188. Sanctuary, *et al, supra* note 10, at 27.

189. *Id.* at 27-29 (noting approximate per capita costs of $7 for Ghana, $8 in Cambodia, and $5 in Bangladesh.)

190. *Id.* at 31-35.

191. *Id.* at 33-35. Taking just one of these improvements, WHO estimates that school attendance would increase by "a staggering 270 million days" if the MDG targets were met. *Id.* at 33.

192. Jennifer McNulty, *Thinking Small Could Quench Third World's Thirst for Reliable, Clean Water, Prof Says*, UC SANTA CRUZ CURRENTS ONLINE, May 3,2004, http:// currents.ucsc.edu/03-04/05-03/water.html (quoting Environmental Studies professor Brent Haddad). Bring McNulty citation forward from FN 192 (quoting Environmental Studies

ter technologies can produce big returns in developing countries. Such technologies include hand-dug wells, tubewells, simple pumps (some powered by children playing on a playground-style "merry-go-round"), rainwater harvesting, solar disinfection, ceramic filters, household chlorination, and inexpensive water filtration devices like those used by campers.[193] Improved sanitation can also be achieved with very simple steps, including pit latrines (especially if they are enclosed and ventilated) and hygiene education since anything that "effectively separates human waste from . . . water sources" helps.[194]

If the American people were asked directly if Congress should appropriate "water aid" in an amount equivalent to a few cents a day for each U.S. citizen to help save the lives of hundreds of thousands of children a year, I suspect that a large number would say yes.[195] Indeed, many might even be willing to make a more direct contribution, such as through a check-off box on a tax return. However, funding decisions like this are not made directly by public opinion poll, nor can such choices be made in isolation from all other governmental taxation and appropriation decisions. Even so, children's health advocates and others should apply pressure to both the administration and Congress to address the universal need for safe water to drink and should at the very least expose and resist the short-sighted decisions to reduce funding for this type of foreign aid.

Furthermore, general income tax revenues are not the only possible source of funding for water aid. Other possibilities for revenue might include sources tied directly to water use in the United States. For instance, what about funding water aid with a tax on sales of bottled water? There is a certain symmetry to that idea, harnessing the resources of the water "haves" to fund progress for the water "have-nots." Other creative sources could be identified as well, such as a fee on international currency transac-

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Professor Brent Haddad).

193. *Id.* *See also* Millenium Promise, *supra* note 187 (discussing boreholes, dug wells, rainwater harvesting, filtration, disinfection, and pit latrines).

194. McNulty, *supra* note 192. *See also* UNICEF, *Water and sanitation to be provided to thousands of displaced children in Eastern Chad*, (press release, July 20, 2007) (discussing boreholes, community latrines, "mini water systems," and family water kits).

195. *See* Amy Bennett, UNICEF Taps New York City restaurants to Aid World Water Problems (Mar. 21, 2007), http://www.unicef.org/infobycountry/usa_39165.html (describing the hundreds of restaurants and thousands of people who participated in the Tap Project in 2007 in which restaurant patrons donated money for the otherwise-free water); Tap Project, Welcome, http://www.tapproject.org (last visited Mar. 26, 2008) (describing the Tap Project as "a campaign that celebrates the clean and accessible drinking water available as an every day privilege to millions, while helping UNICEF provide safe drinking water for children around the world").

tions or other international monetary or trade transactions. Funding water aid by tapping global economic transactions could make globalization and free trade work better for those who are currently being left behind by the changing global economy.

These proposals are obviously not carefully crafted but are more in the nature of "thinking out loud." My hope is just to illustrate that once a decision is made to fund a modest amount of universal water aid, there could be numerous revenue options.

3. Water Neutrality

Providing water aid can be a neutral decision as long as we focus in the first instance only on the "what"—providing clean water—rather than on the "how" and the "who"—whether the infrastructure will be big or small, the providers governmental or private. Any aid decision, of course, can become a political football, but with vigilance and some basic ground rules, it would be possible to keep water aid "pure." The first ground rule should be to target water aid in the greatest amounts to the countries with the most severe water supply and sanitation problems, independent of any other factors.

This first guideline is relatively easy to implement, at least initially, because numerous organizations and studies have already identified the areas of greatest need.[196] *Making* the list is not the problem; the challenge is to *follow* the list regardless of where it might lead. But in order to address the most severe water problems, it is critical to separate water aid from strategic politically-driven foreign aid, just as we provide emergency relief after natural disasters even in countries we might not otherwise support with ongoing assistance.

Protecting the neutrality of needs-based water aid would require a commitment to another corollary and complementary ground rule. Water aid should be "untied." In other words, there should be no strings attached except those necessary to guarantee that the money is spent directly on end-user water and sanitation. In other words, water aid should go straight to communities, villages, and families to assist directly with on-the-ground improvements, rather than being routed through the World Bank or the International Monetary Fund, with their requirements for privatization of water supply and other "private sector development strategies" that often seem to do more to enrich donor countries and their industries than to assist the aid recipients and their

196. *See e.g.*, WORLD HEALTH ORG. & UNICEF, *supra* note 7.

communities.[197] Nor should the aid go into the recipients' national treasuries unless it is clear that the targeted recipients will indeed receive the intended benefits.

These ground rules obviously pose significant challenges, both logistical and political. How could the U.S. possibly implement a workable and credible foreign aid program that bypasses not only the key multinational aid agencies, but also national governments themselves, and which awards aid without regard to the politics of the recipient nations?

Before I attempt to answer that question, it is time for another water break. At the beginning of this Article, I invited you to indulge in a drink of good, safe, tap water, but now something stronger is in order. Open a bottle of nutrient-enhanced "Vitaminwater," electrolyte-enhanced "Smartwater," antioxidant-infused "Life Water," or just "Utopia."[198] If these bottled water products deliver even half of what they promise, perhaps they can help the reader envision what might otherwise seem somewhat unrealistic.

The architecture of a neutral water aid program would consist of simple technology, simple infrastructure, simple accounting, and minimal bureaucracy, all adapted to particular localities and cultures. [199] Simple technologies for water supply include rainwater harvesting structures, dug wells, boreholes, tubewells, and home-based filtration or purification systems. Individual, "point-of-use" solutions are particularly important when water supply infrastructure does not exist because of political instability, high cost, or other factors.[200] The same is true for the sanitation end of the water management equation. Simple technologies could dramatically reduce cholera, malaria, and other waterborne diseases.[201]

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197. *See* Nancy C. Alexander, A Critique of the World Bank Water Resources Strategy (Sept. 19, 2002), http://www.globalpolicy.org/socecon/bwi-wto/wbank/2002/0919critique.htm (describing various requirements and strategies of the World Bank, IMF, and multilateral development banks to promote or force privatization of water and sanitation services and tying of aid to purchase of technical services and equipment from particular sources).

198. *See* Sam Howe Verhovek, *A Few Cities See a Profit in Bottling L'Eau de Tap*, N.Y. TIMES, Aug. 6, 1997, at A1 (listing Utopia among brands marketed by Perrier); Glacéau, http://www.glaceau.com (last visited Mar. 26, 2008) (listing Vitaminwater and Smartwater as Glacéau products); SoBe Life Water, http://www.sobelifewater.com (last visited Mar. 26, 2008) (showing Life Water is a SoBe product).

199. McNulty, *supra* note 192 (describing small scale technologies such as the type of low cost water filters used by campers as a viable approach to providing clean water in developing countries).

200. *See* Elizabeth Gehrman, *Forty Percent of World Lacks Clean Water, Solutions Sought*, HARV. UNIV. GAZETTE ONLINE, May 17, 2007, http://www.news.harvard.edu/gazette/2007/05.17/05-water.html, (reporting on remarks by MIT's Susan Murcott and CDC's Daniele Lantagne about the necessity and effectiveness of pursuing low-cost, user-friendly, point-of-use technologies where reliable community infrastructure is unavailable).

201. *See* McNulty, *supra* note 192.

Indeed, a successful water aid program would involve human infrastructure rather than physical infrastructure of concrete and pipes. The necessary personnel would be in the field, not in the offices of the World Bank or the U.S. State Department. They would help people determine what water supply and sanitation solutions would work best for their physical location and within their community, help obtain appropriate technology and education on how to use it, and follow up with monitoring to be sure the solutions worked.[202] In other words, such a program ideally would resemble the Peace Corps more than the Corps of Engineers. A program using the best of the Peace Corps model would minimize the layers of bureaucracy and maximize the amount of aid that would go directly to improving drinking water sources and upgrading sanitary facilities. Both accounting (from a financial standpoint) and accountability (from a results standpoint) would also be simplified in such a system.

The barriers to addressing the world's water woes are not primarily technical or even economic. Rather, what are lacking are political will, genuine commitment, and a modest amount of funding. One water expert, speaking of the thousands of children who die every day from preventable water-related diseases, identified the problem this way:

> This daily tragedy is the result of the world's failure to provide adequate drinking water and sanitation to everyone. We know how to meet basic human needs for water, but we have failed to make this a priority. It is time to take the necessary steps to prevent this needless suffering.
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> . . .
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> There are lots of things that work, and they work in different places in different combinations at different times. . . . A sustainable world, with clean water for all, is attainable. . . .

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202. *See* Sandra Postel, Liquidating Our Assets (July 20, 2005), http://www.tompaine.com/print/liquidating_our_assets.php (discussing the need to work with, rather than against, natural ecosystems and hydrological processes to meet the needs for drinking water, food security, and flood control and noting success with rainwater harvesting for poor farmers); Christine Van Lenten, The New York Academy of Sciences, Rivers for Life: Managing Water for People and Nature: An Evening with Sandra Postel & Brian Richter, The New York Academy of Sciences (Mar. 1, 2004), http://www.nyas.org/ publications/readersWritersReportPrint.asp?articleID=10 (discussing the need for democratic water management decision-making rather than top-down engineering solutions and stressing the importance of public management over privatization); *see also* Gehrman, *supra* note 200 (quoting MIT's Susan Murcott: "The biggest mistake we can make is to just drop technologies on people. There has to be an educational component and a monitoring process.").

> [L]et's commit the resources needed to reach this goal.[203]

By targeting a small fraction of its foreign aid budget to a neutral program of purely humanitarian water aid, the United States could make a huge commitment toward meeting the universal goal of safe drinking water and decent sanitation. For the richest country in the world, it seems like the right thing to do.

V. CONCLUSION: WATER DIPLOMACY: FIGHTING FIRE WITH WATER

Treating water aid as part of an independent humanitarian aid agenda, rather than as part of a highly politicized foreign policy agenda, could in fact turn out to be brilliant foreign policy. If the United States embarked upon a serious program of water assistance, that effort could go a long way toward extinguishing the fires of anti-American sentiment and restoring our tarnished international reputation. Actions speak louder than words, and lately American words about how much we value freedom, liberty, self-determination, and prosperity for the people of the world have been drowned out by isolationist, aggressive, and hypocritical behavior. A universal and neutral program of water aid would start a different conversation, backed up by tangible proof, about compassion, generosity, and genuine economic development for the poorest people in the world. Carrying water might not be such a bad way to make foreign policy.

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203. Press Release, Pac. Inst., On World Water Day, the Solutions Are Here (Mar. 22, 2007) (available at http://www.pacinst.org/press_center/press_releases/20070322.html) (internal quotation marks omitted).

ECOSYSTEM SERVICES, THE MILLENNIUM ECOSYSTEM ASSESSMENT, AND THE CONCEPTUAL DIFFERENCE BETWEEN BENEFITS PROVIDED BY ECOSYSTEMS AND BENEFITS PROVIDED BY PEOPLE

EZEQUIEL LUGO*

I. INTRODUCTION

Human beings depend on the environment for their survival.[1] While this idea has been around since antiquity,[2] the concept of "ecosystem services" developed in the late 1990s to represent critical services that facilitate the conditions and processes sustaining human existence.[3] Within the scientific community, the term "ecosystem services" refers to "the benefits human populations derive,

* Law Clerk to the Honorable Douglas A. Wallace, Florida Second District Court of Appeal; J.D., Stetson University College of Law, 2007; A.B., Harvard University, 1999. This Article is a development of research conducted for the Scientific and Technical Review Panel (STRP) of the Ramsar Convention on Wetlands. The STRP was interested in how the terms "ecosystem services" and "ecosystem benefits" were used and defined in various international fora after the intense disagreement at the Ninth Meeting of the Conference of the Parties regarding the usage of these two terms. The views expressed in this article, however, are entirely my own. I am particularly grateful to Professor Royal C. Gardner, Mr. Randy Milton, Dr. Max Finlayson, and Mr. Dave Pritchard who provided valuable thoughts and comments during the preparation of this Article. I am also grateful for the diligent work of the staff of the *Journal of Land Use & Environmental Law* to make the publication of this Article possible.

1. *See* MILLENNIUM ECOSYSTEM ASSESSMENT, ECOSYSTEMS AND HUMAN WELL-BEING: SYNTHESIS 1 (2005) *available at* http://www.millenniumassessment.org/documents/document.356.aspx.pdf [hereinafter MILLENNIUM ECOSYSTEM ASSESSMENT SYNTHESIS].

2. *See* Harold A. Mooney & Paul R. Ehrlich, *Ecosystem Services: A Fragmentary History*, *in* NATURE'S SERVICES: SOCIETAL DEPENDENCE ON NATURAL ECOSYSTEMS 11, 11 (Gretchen C. Daily ed., 1997).

3. *See* EDWARD O. WILSON, THE FUTURE OF LIFE 106 (2002); James Salzman et al., *Protecting Ecosystem Services: Science, Economics, and Law*, 20 STAN. ENVTL. L.J. 309, 310 (2001). *See generally* Peter Kareiva & Michelle Marvier, *Conservation for the People*, SCI. AM., Oct. 2007, at 50 (discussing ecosystem services generally and comparing the protection of ecosystem services to other conservation efforts).

directly or indirectly, from ecosystem functions" and includes both goods and services.[4] Ecosystem services include air and water purification, flood and drought mitigation, generation of soil, and pollination.[5]

The 1997 *Nature* article *The Value of the World's Ecosystem Services and Natural Capital*[6] first drew policymakers' attention to the notion of valuing ecosystem services and highlighted the importance of such valuation.[7] In that article, a team led by Robert Costanza explained that policymakers do not give enough weight to ecosystem services even though "[t]he economies of the Earth would grind to a halt without the services of ecological life-support systems . . . ."[8] Costanza's team estimated that ecosystems provide approximately $33 trillion (in 1994 dollars) worth of services per year, a value 1.8 times greater than the 1997 global gross national product.[9] They concluded by stressing the significance of ecosystem services and the potential impact to humanity if we continue to take ecosystem services for granted.[10]

Other scientists, including E.O. Wilson, have also utilized the term "ecosystem services" to place a quantitative value on biodiversity loss and highlight the futility of creating replacements capable of providing the same services.[11] Businesses, non-governmental organizations, states and other international fora have also adopted the concept.[12] However, a multitude of terms have been adopted to refer to the benefits ecosystems provide to

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4. *See* Robert Costanza et al., *The Value of the World's Ecosystem Services and Natural Capital*, 387 NATURE 253, 253 (1997).

5. *See* Gretchen C. Daily, *Introduction: What are Ecosystem Services?*, *in* NATURE'S SERVICES: SOCIETAL DEPENDENCE ON NATURAL ECOSYSTEMS 1, 3-4 (Gretchen C. Daily ed., 1997).

6. Costanza et al., *supra* note 4.

7. *See, e.g., Audacious Bid to Value the Planet Whips Up a Storm*, 395 NATURE 430, 430 (1998).

8. Costanza et al., *supra* note 4, at 253.

9. *Id.* at 253, 259. A more recent study has valued the ecosystem services insects provide within the United States at $57 billion. *See* John E. Losey & Mace Vaughan, *The Economic Value of Ecological Services Provided By Insects*, 56 BIOSCIENCE 311, 312 (2006). The study focused on services provided by wild native insects in the areas of dung burial ($.38 billion), pest control ($4.49 billion), pollination ($3.07 billion), and recreation ($49.96 billion). *Id.* at 311-12, 314-16, 319-20.

10. *See* Costanza et al., *supra* note 4, at 259.

11. *See* WILSON, *supra* note 3, at 105-12; Daily, *supra* note 5, at 9-10.

12. *See*, *e.g.*, GOLDMAN SACHS, GOLDMAN SACHS ENVIRONMENTAL POLICY FRAMEWORK, http://www2.goldmansachs.com/citizenship/environment/policy-framework.pdf (last visited Feb. 14, 2008); Manal Hefny et al., *Linking Ecosystem Services and Human Well-being*, *in* ECOSYSTEMS AND HUMAN WELL-BEING: MULTISCALE ASSESSMENTS, Vol. 4 43, 45 (Doris Capistrano et al. eds., 2005) *available at* http://www.millenniumassessment.org/documents/document.341.aspx.pdf; International Union for the Conservation of Nature [IUCN], Ecosystem Services, http://www.iucn.org/themes/cem/ourwork/ecservices/index.html (last visited Feb. 14, 2008).

people, including the terms "ecosystem services," "ecosystem benefits/services," "services," "environmental services and benefits," and "environmental services."[13]

A recent article suggests that "ecosystem services," as defined by the Millennium Ecosystem Assessment,[14] should be the preferred term to describe the benefits human populations derive from ecosystems because it conveys the value of these services and the harmful impact their degradation would present.[15] The Millennium Ecosystem Assessment used the term "to *assess the consequences of ecosystem change for human well-being* and to establish the scientific basis for actions needed to enhance the conservation and *sustainable use of ecosystems* and their contributions to human well-being."[16] While the most widely used term to describe these types of benefits remains "ecosystem services," some states have expressed the concern that the use of the term "ecosystem services" implies that individuals must pay for these previously free benefits, and have opted for using alternate terms instead.[17] In turn, this has led to confusion and resistance to incorporate ecosystem services in policy discussions at the international level.[18]

This Article will compare how different terms relating to "ecosystem services" have been defined and used in various international fora to understand why some states view this term as implying payment for the benefits derived from ecosystems. Part II will describe the Millennium Ecosystem Assessment and its definition of ecosystem services. Part III will focus on the lack of uniformity in how the Millennium Ecosystem Assessment definition has been adopted by states and international organizations. Part IV analyzes alternate definitions of ecosystem services formulated within the context of payment for environmental services[19] programs and their impact on international policymaking related to the Millennium Ecosystem Assessment. Part V concludes that confusion created by the use of the term "ecosystem services" in the payment for environmental services context can be corrected by distinguishing between benefits provided by ecosystems and human protection of

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13. *See infra* Part III.

14. *See infra* Part II for more information regarding the Millennium Ecosystem Assessment.

15. *See* Walter Reid et al., Editorial, *'Ecosystem Services': A Vital Term in Policy Debates*, SCI. AND DEV. NETWORK, Aug. 1, 2005, http://www.scidev.net/Editorials/index.cfm?fuseaction=readEditorials&itemid=166&language=1.

16. MILLENNIUM ECOSYSTEM ASSESSMENT SYNTHESIS, *supra* note 1, at v (emphasis added).

17. *See* Reid et al., *supra* note 15.

18. *See id*.

19. The phrase "payment for environmental services" will be used to refer to programs labeled "payment for ecosystem services" or "payment for environmental services."

these ecosystems.

II. THE MILLENNIUM ECOSYSTEM ASSESSMENT'S DEFINITION OF ECOSYSTEM SERVICES

In the middle of the 1990s, scientists and people working within the regimes established by international environmental agreements recognized the need for an international ecosystem assessment.[20] Major advances in ecology, economics, and other fields were poorly reflected in policy discussions regarding ecosystems.[21] And, then-existing mechanisms did not satisfy the fundamental need for scientific data to implement international environmental agreements.[22] The United Nations Environment Programme (UNEP), the National Aeronautics and Space Administration, and the World Bank published a draft international assessment written by a panel composed of forty leading scientists in 1998.[23] This draft called for an integrated assessment process that could highlight the linkages between issues related to climate, biodiversity, desertification, and forestry.[24]

After this call to action, United Nations Secretary-General Kofi Annan called for the Millennium Ecosystem Assessment in 2000.[25] The Millennium Ecosystem Assessment described its goal as "assess[ing] the consequences of ecosystem change for human well-being and the scientific basis for action needed to enhance the conservation and sustainable use of those systems and their contribution to human well-being."[26] Between 2001 and 2005, an international network of 1300 natural and social scientists and other experts from ninety-five countries assessed previously available knowledge, scientific literature, and data through a format modeled on the Intergovernmental Panel on Climate Change (IPCC).[27] The Millennium Ecosystem Assessment's final products, four tech-

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20. *See generally,* Millennium Ecosystem Assessment, History of the Millennium Assessment, http://www.millenniumassessment.org/en/History.aspx (last visited Feb. 14, 2008).

21. *Id.*

22. *Id.*

23. *Id.*

24. *Id.*

25. Millennium Ecosystem Assessment, Overview of the Millennium Ecosystem Assessment, http://www.millenniumassessment.org/en/About.aspx (last visited Feb. 14, 2008) [hereinafter Millennium Ecosystem Assessment Overview].

26. *Id.*

27. *Id. See generally* Dagmar Lohan, *Assessing the Mechanisms for the Input of Scientific Information into the UNFCCC*, 17 COLO. J. INT'L ENVTL. L. & POL'Y 249, 265-79 (2006) (describing the format followed by the Intergovernmental Panel on Climate Change to gather the information necessary for the implementation of the United Nations Framework Convention on Climate Change).

nical volumes, were reviewed by forty-four governments, nine scientific organizations, and over six hundred individual reviewers from around the globe.[28] Consequently, the Millennium Ecosystem Assessment's findings reflect the consensus of the largest group of natural and social scientists ever assembled to assess knowledge in the area of ecosystem change.[29]

The fundamental basis of the Millennium Ecosystem Assessment's work was the idea of ecosystem services.[30] The Millennium Ecosystem Assessment referred to the scientific literature[31] when defining ecosystem services as "the benefits people obtain from ecosystems. These include *provisioning services* such as food, water, timber, and fiber; *regulating services* that affect climate, floods, disease, wastes, and water quality; *cultural services* that provide recreational, aesthetic, and spiritual benefits; and *supporting services* such as soil formation, photosynthesis, and nutrient cycling."[32] Provisioning services are the products humans acquire from ecosystems.[33] Regulating services are defined as "the benefits obtained from the regulation of ecosystem processes . . . ."[34] Cultural services are those "nonmaterial benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences . . . ."[35] Supporting services are described as the necessary services for the

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28. Millennium Ecosystem Assessment Overview, *supra* note 25.

29. *Id.*

30. *See* MILLENNIUM ECOSYSTEM ASSESSMENT SYNTHESIS, *supra* note 1, at v.

31. MILLENNIUM ECOSYSTEM ASSESSMENT, ECOSYSTEMS AND HUMAN WELL-BEING: A FRAMEWORK FOR ASSESSMENT 54-55 (2003) (citing Robert Costanza et al., *The Value of the World's Ecosystem Services and Natural Capital*, 387 NATURE 253, 253 (1997) and Gretchen C. Daily, *Introduction: What are Ecosystem Services?*, *in* NATURE'S SERVICES: SOCIETAL DEPENDENCE ON NATURAL ECOSYSTEMS 1, 3 (Gretchen C. Daily ed., 1997)).

32. MILLENNIUM ECOSYSTEM ASSESSMENT SYNTHESIS, *supra* note 1, at v. *See* MILLENNIUM ECOSYSTEM ASSESSMENT, *supra* note 31, at 49; *see also* EVALUACIÓN DE LOS ECOSISTEMAS DEL MILENIO [MILLENNIUM ECOSYSTEM ASSESSMENT], ECOSISTEMAS Y BIENESTAR HUMANO: OPORTUNIDADES Y DESAFÍOS PARA LAS EMPRESAS Y LA INDUSTRIA [ECOSYSTEMS AND HUMAN WELL—BEING: OPPORTUNITIES AND CHALLENGES FOR BUSINESS AND INDUSTRY] 3, http://www.millenniumassessment.org/documents/document.754.aspx.pdf (last visited Feb. 14, 2008) (defining "servicios de los ecosistemas" as "los beneficios que los seres humanos obtienen de los ecosistemas, y son producidos por interacciones dentro del ecosistema."); Manal Hefny et al., *supra* note 12, at 45 ("Ecosystem services are the benefits that people obtain from ecosystems, including food, natural fibers, a steady supply of clean water, regulation of pests and diseases, medicinal substances, recreation, and protection from natural hazards such as floods."); MILLENNIUM ECOSYSTEM ASSESSMENT, ECOSYSTEMS AND HUMAN WELL-BEING: WETLANDS AND WATER SYNTHESIS at v (2005), *available at* http:///www.millenniumassessment.org/documents/document.358.aspx.pdf [hereinafter MILLENNIUM ECOSYSTEM ASSESSMENT WETLANDS] (defining "ecosystem services" as "the benefits people obtain from ecosystems" and including a description of the four types of ecosystem services).

33. MILLENNIUM ECOSYSTEM ASSESSMENT, *supra* note 31, at 56.

34. *Id.* at 57.

35. *Id.* at 58.

production of all ecosystem services whose impact on human populations are indirect or long-term.[36]

The Millennium Ecosystem Assessment presented four major findings for decision-makers. First, humans have caused a substantial and irreversible biodiversity loss by altering ecosystems during the last fifty years faster and more extensively than ever.[37] Second, changes to ecosystems have led to improved human well-being and economic development, but at the cost of the degradation of many ecosystem services.[38] Third, this degradation of ecosystem services could grow worse during the next fifty years.[39] Fourth, it is possible to reverse the degradation of ecosystem services while meeting increasing demands for services if policies, institutions, and practices are changed according to the suggestions of the Millennium Ecosystem Assessment.[40]

One suggested change is increased coordination between international environmental agreement regimes and between international environmental agreement regimes and other international organizations.[41] The Millennium Ecosystem Assessment suggests that this increased coordination is necessary to ensure that international environmental agreement regimes, other international organizations, and national institutions do not hinder each other's work.[42] Because communication would be essential to this proposed coordination, the importance of having different international environmental agreement regimes, international organizations, and national institutions speaking the same language becomes apparent.

Several international environmental agreement regimes, international organizations, and national institutions have adopted the Millennium Ecosystem Assessment's terminology and are on their way to implementing the Millennium Ecosystem Assessment's recommended increase in coordination. The Millennium Ecosystem Assessment's definition of "ecosystem services" has been used by the scientific community,[43] the Food and Agriculture Organization of the United Nations (FAO),[44] the UNEP,[45] the U.N.

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36. *Id.* at 59.
37. MILLENNIUM ECOSYSTEM ASSESSMENT SYNTHESIS, *supra* note 1, at 1.
38. *Id.*
39. *Id.*
40. *Id.*
41. *Id.* at 20.
42. *Id.*
43. *See, e.g.,* Claire Kremen & Richard S. Ostfeld, *A Call to Ecologists: Measuring, Analyzing, and Managing Ecosystem Services*, 3 FRONTIERS IN ECOLOGY & ENV'T 540, 540 (2005); Jeffrey D. Sachs & Walter V. Reid, *Investments Toward Sustainable Development*, 312 SCI. 1002, 1002 (2006).
44. *See* Food and Agriculture Organization of the U.N., FAO/Netherlands Interna-

Economic Commission for Europe (UNECE),[46] and the United States Department of Agriculture Forest Service.[47] The Subsidiary Body on Scientific, Technical and Technological Advice for the Convention on Biological Diversity[48] (CBD SBSTTA), while not defining the term directly, has stated that some of its documents are consistent with the terminology used by the Millennium Ecosystem Assessment, including the term "ecosystem services."[49] Furthermore, Ducks Unlimited Canada and Nature Conservancy Canada use the term "ecosystem services" in a manner consistent with the Millennium Ecosystem Assessment's approach.[50]

However, two problems hindering the uniform usage of "ecosystem services" as defined by the Millennium Ecosystem Assessment, have emerged. First, the use of multiple terms to refer to the benefits ecosystems provide to people has created confusion, indicating a lack of consensus among international environmental agreement regimes, international organizations, and national institutions.[51] Second, the use of the term "ecosystem services" within the context of payment for environmental services has created the misconception that people will have to pay for benefits ecosystems provide to people rather than for services people provide to protect ecosystems.[52] These problems will be addressed in the next two parts of this Article.

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tional Conference on Water for Food & Ecosystems: Glossary, http://www.fao.org/ag/wfe2005/glossary_en.htm (last visited Feb. 14, 2008).

45. *See* U.N. Environment Programme, GEO: Global Environment Outlook, GEO Year Book 2006, http://www.unep.org/geo/yearbook/yb2006/011.asp (last visited Feb. 14, 2008).

46. *See* U.N. ECONOMIC COMMISSION FOR EUROPE, CONVENTION ON THE PROTECTION AND USE OF TRANSBOUNDARY WATERCOURSES AND INTERNATIONAL LAKES, NATURE FOR WATER: INNOVATIVE FINANCING FOR THE ENVIRONMENT 4, *available at* http://www.ramsar.org/key_unece_water_brochure02.pdf (last visited Mar. 25, 2008) [hereinafter UNECE].

47. U.S. Dep't of Agric. Forest Serv., About Ecosystem Services, http://www.fs.fed.us/ecosystemservices/introduction.shtml (last visited Feb. 14, 2008).

48. Convention on Biological Diversity, June 5, 1992, 31 I.L.M. 818, 1760 U.N.T.S. 79.

49. *See* Convention on Biological Diversity, Subsidiary Body on Scientific, Technical & Technological Advice, *Draft Guidance on Biodiversity-Inclusive Strategic Environmental Assessment*, Annex III ¶ 5, U.N. Doc. UNEP/CBD/SBSTTA/11/INF/19 (Oct. 27, 2005).

50. NANCY OLEWILER, THE VALUE OF NATURAL CAPITAL IN SETTLED AREAS OF CANADA 2-5 (2004), *available at* http:www.ducks.ca./aboutduc/news/archives/pdf/ncapital.pdf ("[E]nvironmental and ecosystem resources . . . are assets that yield goods and services over time (goods and services that are essential to the sustained health and survival of our population and economy)."). The report defines "ecosystems or environmental capital" as "systems that provide essential environmental goods and services such as our atmosphere and waste assimilation provided by wetlands . . . ." *Id*. at 1. Elsewhere, the report lists examples of "Ecosystem Services" as "Goods and Services Provided," such as carbon storage and sequestration, water regulation, water supply and treatment, and other benefits that ecosystems provide people. *Id*. at 4.

51. *See infra* Part III.

52. *See infra* Part IV.

III. THE LACK OF UNIFORMITY IN THE ADOPTION OF THE MILLENNIUM ECOSYSTEM ASSESSMENT'S DEFINITION OF ECOSYSTEM SERVICES

A survey of the practice of international environmental agreement regimes, international organizations, and states demonstrates that the concerns regarding the diversity of definitions of "ecosystem services" are well-founded. While agreement regimes, organizations, and states have increasingly acknowledged the importance of the benefits people obtain from ecosystems, the use of the term "ecosystem services" to refer to these benefits has not been uniform.

The Committee for the Review of the Implementation of the Convention to Combat Desertification[53] (CRIC) recently decided to replace the term "ecosystem services" with "ecosystem protection, rehabilitation and restoration in drylands" because there was a lack of consensus on the meaning of "ecosystem services."[54] The CRIC concluded that "ecosystem services had not yet been defined" despite specifically referring to the Millennium Ecosystem Assessment and its emphasis on ecosystem services.[55] Consequently, the phrase "ecosystem protection, rehabilitation and restoration in drylands" is currently used in documents relating to this convention instead of the more generally accepted "ecosystem services."[56]

The Ramsar Convention[57] Conference of the Parties (COP), for its part, has not used the term "ecosystem services" exclusively when promoting sustainability. The Ramsar COP requested the Scientific and Technical Review Panel (STRP) to "report to COP9 concerning identified gaps and disharmonies in defining and reporting . . . giving priority to advice and guidance on practical matters on issues that should include . . . evaluating the values and functions, goods and services provided by wetlands."[58] The STRP

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53. United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Draught and/or Desertification, Particularly in Africa, Oct. 14, 1994, 33 I.L.M. 1328, 1954 U.N.T.S. 3.

54. Convention to Combat Desertification, X Regional Meeting of the Latin American and the Caribbean Country Parties, Aug. 29-31, 2005, *Final Report*, 48 note 6, *available at* http://www.unccd.int/regional/lac/meetings/regional/XLAC2005/report-eng.pdf [hereinafter X LAC].

55. Convention to Combat Desertification, Comm. for the Review of the Implementation of the Convention, June 23, 2005, *Report of the Committee on Its Third Session*, ¶ 61, U.N. Doc. ICCD/CRIC(3)/9, *available at* http://www.unccd.int/cop/officialdocs/cric3/pdf/9eng.pdf [hereinafter CRIC3].

56. CRIC3, *supra* note 55, at ¶¶ 48, 55; X LAC, *supra* note 54, at 48.

57. Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Feb. 2, 1971, 996 U.N.T.S. 245, 11 I.L.M. 969, *available at* http://ramsar.org/key_conv_e.htm.

58. Convention on Wetlands, Ramsar Res. VIII.7, ¶ 15(b), Conference of the Contract-

subsequently recognized that the Millennium Ecosystem Assessment stated that the use of "ecosystem services" corresponded to the phrase "products, functions and attributes" as used by the COP in the Ramsar definition of "ecological character."[59] Document sixteen, prepared for Ramsar COP9, used the term "ecosystem services" exclusively.[60] In Ramsar Resolution IX.1, however, the COP decided to use "ecosystem benefits/services" as a synonym for the Millennium Ecosystem Assessment's definition of "ecosystem services."[61]

While the Ramsar COP has utilized the term "ecosystem benefits/services" as a synonym for the Millennium Ecosystem Assessment's definition of "ecosystem services,"[62] other organizations that have used the term "ecosystem benefits" have not defined it.[63] For example, the International Union for Conservation of Nature has used the term "ecosystem benefits" interchangeably with "ecosystem services" without defining either term[64] while the CBD SBSTTA has used the terms "ecosystem benefits," "ecosystem services," and "environmental services" interchangeably without defining these terms.[65] This use of "ecosystem benefits" fails to clar-

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ing Parties, 8th Meeting, (Nov. 18-26, 2002), *available at* http://www.ramsar.org/res/key_res_viii_07_e.pdf.

59. Ninth Meeting of the Conference of the Parties to the Convention on Wetlands, Ramsar, Iran, Nov. 8-15, 2005, *Rationale for Proposals for* A Conceptual Framework for the Wise Use of Wetlands *and the Updating of Wise Use and Ecological Character Definitions*, ¶¶ 23-25, 27, Ramsar COP9 Doc. 16, *available at* http://www.ramsar.org/cop9/cop9_doc16_e.pdf [hereinafter COP9]; *see also* MILLENNIUM ECOSYSTEM ASSESSMENT WETLANDS, *supra* note 32, at v (relating Millennium Ecosystem Assessment's definition of "ecosystem services" to Ramsar's definition of "ecological character").

60. COP9, *supra* note 59, at ¶¶ 5, 6(vi), 21-26.

61. Convention on Wetlands, Ramsar Res. IX.1, Annex A ¶¶ 8-9, 23-24, Conference of the Parties, 9th Meeting, (Nov. 8-15, 2005) *available at* http://www.ramsar.org/res/key_res_ix_01_annexa_e.pdf.

62. *Id.* at Annex A ¶ 23-24.

63. *See, e.g.,* LUCY EMERTON & ELROY BOS, INT'L UNION FOR CONSERVATION OF NATURE, VALUE: COUNTING ECOSYSTEMS AS WATER INFRASTRUCTURE 50 (2004), *available at* http://www.iucn.org/themes/wani/publications/pub/VALUE.pdf.

64. *See id.*; Achim Steiner, Director General, Int'l Union for Conservation of Nature, Statement at the 13th Session of the UN Commission on Sustainable Development: IUCN Statement on Integrated Water Resources Management (April 21, 2005), *available at* http://www.un.org/esa/sustdev/csd/csd13/statements/2204_iucn.pdf; Press Release, Int'l Union for Conservation of Nature, IUCN Report Shows the Profits of Investing in Ecosystems for Water (Nov. 20, 2004), *available at* http://www.iucn.org/congress/2004/documents/press/2004-11-20-wani.pdf.

65. *See* Convention on Biological Diversity, Subsidiary Body on Scientific, Technical & Technological Advice, *Report of the Subsidiary Body on Scientific, Technical and Technological Advice on the Work of its Eleventh Meeting*, 48-49, U.N. Doc. UNEP/CBD/COP/8/3 (Dec. 19, 2005) *available at* http://cbd.int/doc/meetings/cop/cop-08/official/cop-08-03-en.pdf (mentioning "that biodiversity and its resources and functions provide important **ecosystem services** to humankind[,]" "that identifying and assessing the value of biodiversity and the **environmental services** it provides can be an incentive in itself," and calling for the "valuation of biodiversity resources and functions and associated **ecosystem benefits**" (emphasis added)).

ify the relationship between the terms and instead creates confusion.

Other organizations and states also adopted the Millennium Ecosystem Assessment's conceptualization of "ecosystem services" under a different term. The UNEP, in a document dated shortly after the Millennium Ecosystem Assessment formulated its definition, uses the term "ecological services" to "refer[] to the conditions and processes through which natural ecosystems sustain and fulfil [sic] human life."[66] The UNEP uses this term interchangeably with "ecosystem benefits."[67]

Another term for "ecosystem services" as defined by the Millennium Ecosystem Assessment can be found in a rule recently promulgated by the United States Army Corps of Engineers ("Corps of Engineers") that seeks "to offset unavoidable impacts to . . . wetland conditions, functions, and values" that are lost to permitted impacts through a compensatory mitigation system.[68] The Corps of Engineers defines "services" as "the benefits that human populations receive from functions that occur in ecosystems."[69] The Corps of Engineers explained that "[f]or example, providing habitat for birds is a biological function of some aquatic habitat types, which in turn provides bird watching services to humans."[70] According to the Corps of Engineers, aquatic resource services "can only be accomplished when people have opportunities to interact with those aquatic resources."[71] As such, the term "services" is defined in accordance with the Millennium Ecosystem Assessment's definition of "ecosystem services."

The World Wide Fund for Nature (WWF) follows a similar approach. In its brochure advocating payments for environmental services programs,[72] the WWF explains that "[n]atural ecosystems

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66. United Nations Environmental Programme [UNEP], International Environmental Technology Centre, Division of Technology, Industry and Economics, *Environmentally Sound Technologies for Sustainable Development*, 21, (revised Sept. 21, 2003), *available at* http://www.unep.or.jp/Ietc/techtran/focus/SustDev_EST_background.pdf.

67. *See id.* ("Public awareness of the value of these **ecosystem benefits** is essential for the development and implementation of public policies for the protection of important habitats. It is therefore important to determine the values of these **ecological services**."(emphasis added)).

68. Compensatory Mitigation for Losses of Aquatic Resources, 73 Fed. Reg. 19,670, 19,670 (Apr. 10, 2008) (to be codified at 33 C.F.R. § 332.1(a)).

69. *Id.* at 19, 672 (to be codified at 33 C.F.R. § 332.2).

70. Compensatory Mitigation for Losses of Aquatic Resources, 71 Fed. Reg. 15,520, 15,525 (proposed Mar. 28, 2006).

71. *Id.* at 15,522.

72. Thailand has defined payment for environmental services within the forestry context as "[a]ny national system which involves rewarding local stakeholders for decreased deforestation or degradation . . . ." United Nations Framework Convention on Climate Change, Subsidiary Body for Scientific & Technological Advice, *Views on the Range of Topics and Other Relevant Information Relating to Reducing Emissions from Deforestation in*

provide a wide range of *environmental services*[] from which people benefit, and upon which all life depends."[73] The WWF further explains that "environmental services" and "ecosystem services" are synonyms.[74] But, the WWF provides no support for either of these two statements. While the WWF cites the Millennium Ecosystem Assessment in this report, it does not directly incorporate the Millennium Ecosystem Assessment's terminology or explain why it failed to do so.[75]

In the late 1990s, several states began incorporating the term "environmental services" in national environmental legislation. El Salvador and Perú did not define the term, but recognized that natural resources provided "environmental services."[76] El Salvador has made the conservation of "environmental services and benefits" one of the goals of its program for managing legally protected natural areas.[77] El Salvador defines "environmental services and benefits" as those natural processes and conditions of ecosystems through which human beings obtain benefits.[78] Salvadorian legislation specifically identified oxygen production, carbon fixation, climate regulation, and the protection of biodiversity and hydrological resources as "environmental services" provided by forests.[79]

Mexico has been using similar terminology since at least 1992.

Developing Countries: Submissions from Parties, 81, (Mar. 2, 2007) *available at* http://unfccc.int/resource/docs/2007/sbsta/eng/misc02.pdf [hereinafter UNFCCC Party Submissions]. For more information on payment for environmental services programs, see *infra* Part IV.

73. WORLD WIDE FUND FOR NATURE, PAYMENTS FOR ENVIRONMENTAL SERVICES: AN EQUITABLE APPROACH FOR REDUCING POVERTY AND CONSERVING NATURE 2 (2006), *available at* http://assets.panda.org/downloads/pes_report_2006.pdf (emphasis added)(footnote omitted).

74. *Id*. & n.1.

75. *See generally, id.*

76. *See* Ley de Medio Ambiente de El Salvador [Environmental Law of El Salvador] art. 14(a), Legis. Decree No. 233 (May 4, 1998) (El Sal.), *available at* http://www.cestafoe.org/recursos/pdfs/Ley_de_medio_ambiente.pdf; Reglamento de la Ley de Áreas Naturales Protegidas [Regulation of the Law of Natural Protected Areas] art. 88, Sup. Decree No. 038-2001-AG, (June 22, 2001) (Perú), *available at* http://biblioteca.unmsm.edu.pe/redlieds/ Recursos/archivos/Legislacion/Peru/DS038-2001-AG.pdf; Ley Orgánica Para el Aprovechamiento Sostenible de los Recursos Naturales [Organic Law for the Sustainable Use of Natural Resources] art. 10, Law No. 26821 (June 25, 1997) (Perú), *available at* http://www. congreso.gob.pe/comisiones/1996/ambiente/lib01/9.htm.

77. *See* Ley de Áreas Naturales Protegidas art. 16(c) [Law of Natural Protected Areas], Legis. Decree No. 579 (Feb. 15, 2005) (El Sal.), *available at* http://www.marn.gob.sv/uploaded/content/article/673972224.pdf.

78. The original Spanish text reads, "BIENES Y SERVICIOS AMBIENTALES: Son aquellas condiciones y procesos naturales de los ecosistemas, incluyendo las provenientes de las especies y los genes, por medio de las cuales el ser humano obtiene beneficios." *Id.* art. 4 (text reflects the author's translation).

79. *See* Ley de Medio Ambiente de El Salvador [Environmental Law of El Salvador] art. 77(a); *see also id*. art. 79(e) (recognizing the environmental services provided by legally-protected natural areas).

Mexico's National Waters Law defines "environmental services" as the benefits of social interest that are generated or derived from the hydrological basins and their components, including climate regulation, erosion control, flood control, soil formation, water purification, and carbon sequestration.[80] The Mapimí Notice, produced by the Mexican Secretary of the Environment and Natural Resources, defines "environmental services" as the capacity ecosystems have to generate useful products for man, including gas regulation, scenic beauty, protection of biodiversity, soils, and water flows.[81]

Costa Rica also defined the term "environmental services" in its Ley Forestal of 1996 [Forestry Law of 1996],[82] stating that "[e]nvironmental services" are those services provided by forests that directly affect the protection and the improvement of the environment.[83] According to Costa Rican law, "environmental services" include carbon sequestration, protection of water, biodiversity protection, and protection of ecosystems, organisms, and scenic beauty.[84]

More recently, Argentina has similarly defined "environmental services" in Law 26.331[85] as the tangible and intangible benefits generated by ecosystems that are necessary for the survival of natural and biological systems as well as for the well-being of Argentineans.[86] Law 26.331 includes hydrological regulation, bio-

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80. Ley de Aguas Nacionales [L.A.N.] [National Waters Law], *as amended*, Diario Oficial de la Federación [D.O.], art. 3(XLIX), 29 de Abril de 2004 (Mex.) (text reflects the author's translation).

81. *See* Aviso Mediante el Cual se Informa al Público en General, que la Secretaría de Medio Ambiente y Recursos Naturales ha Concluido la Elaboración del Programa de Manejo del Área Natural Protegida con el Carácter de Reserva de la Biosfera Mapimí [Mapimí Notice], Diario Oficial de la Federación [D.O.], Annex, 24 de Octubre de 2006 (Mex.) (text reflects the author's translation).

82. Ley Forestal [Forest Law], Law No. 7575 (Feb. 5, 1996) (Costa Rica), *available at* http://www.asamblea.go.cr/ley/leyes/7000/7575.doc. This legislation established the current Costa Rican system of payment for environmental services. *Id.* art. 46 (text reflects the author's translation).

83. The original Spanish text reads

> Los que brindan el bosque y las plantaciones forestales y que inciden directamente en la protección y el mejoramiento del medio ambiente. Son los siguientes: mitigación de emisiones de gases de efecto invernadero (fijación, reducción, secuestro, almacenamiento y absorción), protección del agua para uso urbano, rural o hidroeléctrico, protección de la biodiversidad para conservarla y uso sostenible, científico y farmacéutico, investigación y mejoramiento genético, protección de ecosistemas, formas de vida y belleza escénica natural para fines turísticos y científicos.

Id. art. 3(k) (text reflects the author's translation).

84. *Id.*

85. Law No. 26.331, Dec. 19, 2007, [31.310] B.O. 2.

86. The original Spanish text reads,

> Considéranse Servicios Ambientales a los beneficios tangibles e intangibles, generados por los ecosistemas del bosque nativo, necesarios para el

logical conservation, soil conservation, carbon sequestration, scenic beauty, and protection of cultural identity as some of the principal "environmental services" that native forests provide to Argentina.[87]

As this brief survey indicates, international environmental agreement regimes, international organizations, and states have increasingly acknowledged the benefits people obtain from ecosystems. But the use of the term "ecosystem services" is not universal. The usage of diverse terms such as "services" or "environmental services," alone, to denote the benefits people obtain from ecosystems would probably not hinder the kind of coordination envisioned by the Millennium Ecosystem Assessment.[88] However, the usage of terms that convey a different meaning in other contexts—particularly "environmental services"—has led to the concerns that the use of the term "ecosystem services" implies that individuals must pay for these previously free benefits as explained below.[89]

IV. PAYMENT FOR ENVIRONMENTAL SERVICES AND BENEFITS PROVIDED BY PEOPLE

Some states have objected to the use of the term "ecosystem services" because they think usage of "ecosystem services" implies that people must now pay for what were previously free benefits.[90] At the root of some of these objections is the increased use of economic approaches to support the conservation of ecosystem services by international organizations in recent years.[91] One such approach is the payment for environmental services system.

Under the World Bank's payment for environmental services system, users pay landowners for the environmental services their lands generate.[92] Generally, the payment to landowners is more than the additional benefit they would receive from alternative

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> concierto y supervivencia del sistema natural y biológico en su conjunto, y para mejorar y asegurar la calidad de vida de los habitantes de la Nación beneficiados por los bosques nativos.

Id. at Art. 5 (text reflects the author's translation).

87. *Id.*

88. *See* MILLENNIUM ECOSYSTEM ASSESSMENT SYNTHESIS, *supra* note 1, at 20.

89. *See* Reid et al., *supra* note 15.

90. *Id.*

91. *Id.*; *see also* James Salzman, *A Field of Green? The Past and Future of Ecosystem Services*, 21 J. LAND USE & ENVTL. L. 133, 141 (2006).

92. *See* Stefano Pagiola & Gunars Platais, *Payments for Environmental Services*, ENVTL. STRATEGY NOTES, May 2002, *available at* http://chm.moew.government.bg/nnps/upload/Common/Baurle_literature_NOF/Local%20Publish/World_Bank_EnvStrategyNote3_2002.pdf.

land uses and less than the value of the benefit to the end users.[93] The goal of the payment for environmental services system is to capture a portion of the benefits received by environmental service users and channel it to land users to provide an incentive to protect ecosystems, *not* to provide compensation for the actual value of the service provided by the ecosystems.[94]

The World Bank has been using the term "environmental services" in its efforts to develop payment for environmental services programs in several Latin American states since at least 2002.[95] While the World Bank never defines "environmental services," one may infer that "environmental services" encompass "water services," "emission reductions," and "ecosystem services," indicating that "environmental services" and "ecosystem services" are not synonymous.[96]

In fact, "environmental services" is the main term used to describe services provided by people that benefit ecosystems.[97] For instance, the World Trade Organization defined "environmental services" in 1998 as including sewage services, refuse disposal services, sanitation services, and other environmental services provided by governments or the private sector including cleaning of exhaust gases, noise abatement services, as well as nature and landscape protection services.[98] South Carolina follows this approach by defining "environmental services" as "the provision, collectively or individually, of water facilities, sewerage facilities, solid waste facilities, or management services."[99] PRISMA,[100] a non-governmental organization concerned with development and

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93. *See id.* at box 1.

94. *See* Pagiola & Platais, *supra* note 92; Food & Agric. Org. of the U.N. [FAO], Latin American Network for Technical Cooperation in Watershed Management, *Electronic Forum on Payment Schemes for Environmental Services in Watersheds*, (Apr. 12 - May 21, 2004), *Final Report* 7 (2004), *available at* http://www.rlc.fao.org/foro/psa/pdf/report.pdf [hereinafter FAO Final Report].

95. *See* Pagiola & Platais, *supra* note 92.

96. *See* World Bank, *Environmental Economics & Indicators — Designing a System of Payments for Environmental Services*, http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/EXTEEI/0,,contentMDK:20487921~menuPK:1187857~pagePK:148956~piPK:216618~theSitePK:408050,00.html (last visited Mar. 27, 2008) (see graphic).

97. In contrast, "ecosystem services" are those "benefits people obtain from ecosystems." MILLENNIUM ECOSYSTEM ASSESSMENT, *supra* note 31, at 49.

98. *See* Council for Trade in Services, *Note by the Secretariat*: *Environmental Services*, ¶ 6, S/C/W/46 (July 6, 1998).

99. S.C. CODE ANN. § 11-40-30(7) (2005). California uses the term "environmental services" to denote efforts to comply with environmental law in the context of public work projects. CAL. GOV'T CODE § 4525(f) (West 2006); CAL. PUB. CONT. CODE § 10510.4(d) (West 2006). Georgia uses the same term to refer to the provision of projects and structures to supply, distribute, and treat water and the management of such projects and structures. GA. CODE ANN. § 12-5-471(2) (2006).

100. Programa Salvadoreño de Investigación Sobre Desarrollo y Medio Ambiente [Salvadoran Program of Investigation on Development and Environment].

the environment, has defined "environmental services" as the restoration, incrementation, and/or the mitigation of the deterioration of the essential ecological processes that sustain human activity.[101] Australia, similarly, defined "natural resource environmental service" as including either: (1) the establishment, purchase, or maintenance of, *inter alia*, forests for carbon sequestration, soil and water improvement, and biodiversity conservation; (2) the provision of any necessary or incidental service to the establishment, purchase or maintenance of forests; or (3) any other service legally prescribed for the use or management of forests.[102]

But perhaps UNECE's and Mexico's usage of the terms "ecosystem services" and "environmental services" has contributed most to the confusion surrounding these terms. UNECE defines "ecosystem services" as the "variety of processes through which natural ecosystems, and the species that they contain, help sustain human life."[103] UNECE's definition is in accordance with the definition of "ecosystem services" as the benefits people receive from ecosystems,[104] but it is provided within a different conceptual background. While other international organizations define the term in the context of promoting the importance of ecosystems for the survival of humanity and the need for environmental sustainability, UNECE uses the term within the context of payment for environmental services programs.[105] UNECE defines payment for ecosystem services as a contractual transaction between a buyer and a seller for an ecosystem service or a land use/management practice likely to secure that service.[106]

Mexico has also defined the term "environmental services" within its payment for environmental services system. "Environmental services" means the services offered by the forest ecosystems naturally or through the sustainable handling of the forest

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101. The original Spanish text reads, "se entiende por *servicio ambiental* la mitigación del deterioro, restauración y/o incremento, en forma conciente, de los procesos ecológicos esenciales que mantienen las actividades humanas." JOHN BURSTEIN ET AL., PRISMA, PAGO POR SERVICIOS AMBIENTALES Y COMUNIDADES RURALES: CONTEXTO, EXPERIENCIAS Y LECCIONES DE MÉXICO [Pay For Environmental Services and Rural Communities: Context, Experiences and Lessons of Mexico] 1 (Herman Rosa ed., 2002), *available at* http://www.rlc.fao.org/foro/psa/pdf/rurales.pdf (text reflects the author's translation).

102. Natural Resources Legislation Amendment (Rural Environmental Services) Bill, 1999, sched. 2.1 (N.S.W. Bill Austl.).

103. UNECE, *supra* note 46, at 4.

104. *See* U.N. Econ. & Soc. Council [ECOSOC], Economic Commission for Europe, Working Group on Integrated Water Resources Management, *Draft Code of Conduct on Payments for Ecosystem Services in Integrated Water Resources Management* 7, U.N. Doc. ECE/MP.WAT/WG.1/2006/3 (June 6, 2006) *available at* http://www.ramsar.org/wn/w.n. unece_code_comment.pdf [hereinafter ECOSOC].

105. *See* UNECE, *supra* note 46, at 3; ECOSOC, *supra* note 104, at 6-7.

106. *See* ECOSOC, *supra* note 104, at 8.

resources.[107] The Mexican payment for environmental services program aims to distribute the cost of conserving forest ecosystems and the "environmental services" these ecosystems provide to society in general.[108] This use of the term "environmental services" within the payment for environmental services context is problematic because it is inconsistent with the terminology used by the World Bank[109] and several states that have implemented payment for environmental services programs.

In the Costa Rican payment for environmental services program established under the auspices of the World Bank, half of the fee charged to end users is used to promote and finance projects developed to conserve, restore, protect, and contribute to the sustainable use of hydrological resources.[110] Nevertheless, the executive decree establishing the Costa Rican payment for environmental services program uses the undefined term "environmental services" to refer to what are really "ecosystem services" under the Millennium Ecosystem Assessment framework. In paragraph IX of the decree's preamble, as in Costa Rica's Ley Forestal of 1996,[111] the regulation highlights the importance of the "environmental service" provided by forest and forest plantations of protecting the State's hydrological resources for human use.[112] This type of "environmental service" provided by forests is not the same type of service provided by the conservation programs being promoted and financed by the fee charged to end users and would be better classified as one of the benefits people receive from ecosystems or an "ecosystem service."

The Peruvian payment for environmental services system also fails to define "environmental services."[113] However, it defines payment for environmental services as the economic repayment that allows society to maintain the natural capital's environmental functions, creating a financial mechanism of compensation to the suppliers of the environmental services on the part of the users, in

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107. Ley General de Desarrollo Forestal Sustentable [General Law of Sustainable Forest Development], *as amended*, Diario Oficial de la Federación [D.O.], art. 7(XXXVII), 26 de Diciembre de 2005 (Mex.) *available at* http://www.diputados.gob.mx/LeyesBiblio/pdf/259.pdf (text reflects the author's translation).

108. *Id.* art. 30(VI).

109. *See supra* notes 92-96 and accompanying text.

110. Canon por Concepto de Aprovechamiento de Aguas [Canon for Concept of Water Use] art. 14, Exec. Decree No. 32868, 21 LA GACETA 2, 4 (Jan. 30, 2006) (Costa Rica), *available at* http://historico.gaceta.go.cr/2006/01/COMP_30_01_2006.pdf; *see* James Salzman, *Creating Markets for Ecosystem Services: Notes from the Field*, 80 N.Y.U. L. REV. 870, 897-99 (2005).

111. *See supra* notes 82-84 and accompanying text.

112. Canon por Concepto de Aprovechamiento de Aguas [Canon for Concept of Water Use], *supra* note 110, at 2.

113. Resolución Jefatural No. 185-2005-INRENA (Aug. 9, 2005) (Perú) .

a sustainable manner.[114] The use of the terms "environmental services" to describe a landowner's conservation efforts and "environmental functions" to describe the object of the legislation's conservation efforts demonstrates that "environmental services" are not the benefits people receive from ecosystems.

By contrast, UNECE and the Tenth Regional Meeting of the Latin American and the Caribbean Country Parties to the United Nations Convention to Combat Desertification and Drought (X LAC Regional Meeting) have also used the term "ecosystem services" to refer to payment for environmental services programs. However, unlike UNECE's usage mentioned above,[115] the X LAC Regional Meeting decided to adopt the new terminology developed by the CRIC and used "ecosystem protection, rehabilitation and restoration in drylands" instead of "ecosystem services."[116]

UNECE's use of "ecosystem services" to refer to the conservation programs being promoted and financed by payment for environmental services programs, the use of the term "environmental services" to refer to the benefits people receive from ecosystems, and the World Bank's use of the term "environmental services" create confusion between these two concepts. Likewise, the usage of the terminology "ecosystem protection, rehabilitation and restoration in drylands" within the context of the U.N. Convention to Combat Desertification and "environmental services and benefits" in Salvadorian legislation fails to clarify the relationship between the terms and instead creates further confusion that impairs the type of coordination envisioned by the Millennium Ecosystem Assessment.

V. CONCLUSION

The Millennium Ecosystem Assessment's suggested increased coordination[117] is currently being hampered by the lack of uniformity in the usage of "ecosystem services."[118] While the term "ecosystem services" corresponds to the original terminology used within the scientific community and would facilitate communication with

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114. The original Spanish text reads, "el Pago por Servicios Ambientales es la retribución económica que realiza la sociedad para mantener funciones ambientales del capital natural, creando un mecanismo financiero de compensación a los proveedores de los servicios ambientales por parte de los usuarios, en forma sostenible . . . ." *Id.* (text reflects the author's translation).

115. *See supra* notes 103-06 and accompanying text.

116. X LAC, *supra* note 54, at 48; CRIC3, *supra* note 55, at ¶¶ 48, 55.

117. MILLENNIUM ECOSYSTEM ASSESSMENT SYNTHESIS, *supra* note 1, at 20.

118. *See supra* Part III.

scientists regarding policy decisions,[119] the use of this term and similar terms within the context of establishing payment for environmental services programs has discouraged states from adopting the Millennium Ecosystem Assessment's terminology.[120]

A good first step toward the increased coordination envisioned by the Millennium Ecosystem Assessment would be for the World Bank, other organizations, and those states developing and implementing payment for environmental services programs to define clearly "environmental services" and to differentiate between benefits provided by ecosystems and benefits provided by people. Argentina and the FAO have taken steps in this direction. Argentina, in its submissions to the Subsidiary Body for Scientific and Technological Advice of the United Nations Framework Convention on Climate Change,[121] pointed out that there is a conceptual difference between "ecosystem services" (consisting of the benefits provided by ecosystems) and "environmental services" (as defined in the WTO context).[122]

Likewise, the FAO formulated a definition for "ecosystem services,"[123] similar to the Millennium Ecosystem Assessment's, as part of the FAO/Netherlands International Conference on Water for Food and Ecosystems in an effort "to identify and discuss the concrete progress being made in the implementation of sustainable water management for food and ecosystems."[124] The FAO has also defined "environmental goods and services" as the "actions and products derived from human activity rather than benefits obtained directly from the natural environment" which includes pollution-reducing equipment, waste management, environmentally-friendly goods, and eco-tourism.[125]

Drawing a clear distinction between benefits provided by ecosystems ("ecosystem services") and benefits provided by people ("environmental services") should help allay states' concerns "that

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119. *See* MILLENNIUM ECOSYSTEM ASSESSMENT, *supra* note 31, at 54-55 (citing Robert Costanza et al., *The Value of the World's Ecosystem Services and Natural Capital*, 387 NATURE 253, 253 (1997) and Gretchen C. Daily, *Introduction: What are Ecosystem Services?*, *in* NATURE'S SERVICES: SOCIETAL DEPENDENCE ON NATURAL ECOSYSTEMS 1, 3 (Gretchen C. Daily ed., 1997)).

120. *See* Reid et al., *supra* note 15.

121. United Nations Framework Convention on Climate Change, May 9, 1992, 1771 U.N.T.S. 107, S. Treaty Doc. No. 102-38.

122. UNFCCC Party Submissions, *supra* note 72, at 5.

123. Food and Agriculture Organization of the U.N., *supra* note 44.

124. FOOD & AGRIC. ORG. OF THE U.N., REPORT OF THE CONFERENCE ON WATER FOR FOOD AND ECOSYSTEMS 1 (2005), http://www.fao.org/ag/wfe2005/docs/finaldocument_Hague_final.pdf.

125. *See* Food and Agriculture Organization of the U.N., *supra* note 44. However, the FAO has also adopted the use of the undefined term "environmental services" in the context of payment for environmental services programs. FAO Final Report, *supra* note 94.

individuals must begin to pay for benefits that were formerly obtained for free."[126] Any payments for "environmental services" would be used to provide an incentive to protect ecosystems and the ecosystem services they provide, *not* as payment for services provided by the ecosystems.[127] Once this distinction is recognized, international environmental agreement regimes, international organizations, and national institutions would be better able to adopt the same language and accomplish the increased coordination advocated by the Millennium Ecosystem Assessment.

The next step would be the uniform use of the term "ecosystem services" to alert policymakers to the importance of ecosystems for the survival of humanity and the need for environmental sustainability. International environmental agreement regimes, international organizations, and national institutions should heed the consensus definition of "ecosystem services" developed by the largest group of natural and social scientists ever assembled to address ecosystem change issues. Usage of any term other than "ecosystem services" to describe the benefits human populations derive from ecosystems should be discouraged[128] if we want to implement the Millennium Ecosystem Assessment's suggestions to reverse the degradation of ecosystem services while meeting increasing demands for services.

126. Reid et al., *supra* note 15.
127. *See* Pagiola & Platais, *supra* note 92; FAO Final Report, *supra* note 94, at 7.
128. *See* Reid et al., *supra* note 15.

USES OF SUBJECTIVE WELL-BEING IN LOCAL ECONOMIC AND LAND USE POLICY

DANIEL M. WARNER*

Money never made a man happy yet, nor will it. The more a man has, the more he wants. Instead of filling a vacuum, it makes one.

Benjamin Franklin

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* Daniel M. Warner is a professor of Business Legal Studies in the Accounting Department at Western Washington University. He has published extensively about law, business, and their relation to modern culture. He is a graduate of the University of Washington Law School, and lives in Bellingham, Washington, where he teaches and where he is also involved in civic and environmental activism.

I. INTRODUCTION: THE CAUSE OF ENVIRONMENTAL DEGRADATION IS ECONOMIC GROWTH POLICY

We cannot "save the earth," notwithstanding any restrictive land-use regime or environmental laws, until we confront the argument that "growth is good." Advocates of economic growth usually favor up-zoning and intensifying land uses, and they claim that growth and the accompanying land use changes are good for society economically: growth is good. Advocates of conservation favor more restrictive land use regulation; they question whether economics is the right measuring device. Therein lies the conflict between land use and the environment.

In late November 2005, President George W. Bush said: "I will continue to push for pro-growth economic policies, all aimed at making sure every American can realize the American Dream."[1] But President Bush is wrong: pro-growth economic policies (at least traditional ones) will not promote the realization of the American Dream; eventually, they will destroy it.[2] The assertion that "growth is good" implies that growth pays its own way,[3] that the costs and benefits of growth (economic activity, more intense land uses, and population growth) are measurable in money, and that the benefits outweigh the costs. The virulent debate is a major impediment and distraction to the adoption of sustainable economic and land-use regimes. And the debate is not useful; it is sterile. Whether growth pays its own way measured in money is not an answerable question; sometimes growth pays its own way, and sometimes it does not. Moreover, even if growth did pay its own way, that in no way informs us whether people are better off for it.

It is futile to ask whether "growth is good" when it is measured in money. It is more instructive, and increasingly popular, to ask whether "growth is good" when it is measured by some alternative indicators (such as whether fast-growing places have lower infant

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1. Scott Stearns, *Bush: US Economy Gaining Strength*, VOICE OF AM. NEWS, Dec. 2, 2005, http://www.voanews.com/english/2005-12-02-voa33.cfm (internal quotation marks omitted).

2. *See, e.g.*, Richard Reeves, *The Strangling of Los Angeles*, UEXPRESS.COM, July 22, 2005, http://www.uexpress.com/richardreeves/index.html?uc_full_date=20050722 (commenting on the growth in population and traffic in Los Angeles that is "testing the limits" of the city's inhabitants). Obviously it is physically impossible to have quantative growth indefinitely.

3. *See* Wayne Laugesen, *Population Bomb: Are We Growing To Fast? Some Say No*, BOULDER WKLY., Mar. 29, 2001, *available at* http://archive.boulderweekly.com/032901/coverstory.html ("The issue: Is growth a drain on society. Or does growth pay its own way, and then some? It absolutely does not, say growth opponents. Yes it does, say pro-development types.").

mortality rates, higher educational attainments, or lower incarceration rates). But this is problematic because the selection of alternative indicators is subjective, and the data collected is arguably unreliable.

However, asking whether growth is good when measured in *human happiness* is very instructive. The answer is, after a society has achieved the standard of living of the lower-middle-class in the United States, growth does not make people happier; it probably makes them less happy. Thus, sprawling land-use patterns and transforming the landscape environment from natural to built-up cannot be economically or socially justified (except by the necessity to accommodate population increase). Therefore, public policy should eschew growth as a goal and promote instead a much more conservative economic and land use policy.

This Article has four purposes. First, it urges that we move beyond the sterile and debilitating debate about whether growth pays its own way economically by showing why that issue—as it is traditionally couched—is not resolvable (or very relevant). Second, it explains why the potentially promising use of alternative indicators gets us little further than economic indicators in answering the question: Is growth good? Third, this Article addresses a question to which some clearer answers are coming on: Does growth make people happier? Fourth, it examines some public-policy implications regarding salutary land-use laws.

II. WHY THE DEBATE ABOUT WHETHER GROWTH IS GOOD ECONOMICALLY IS IRRESOLVABLE

A number of claims are commonly made about why growth is good economically. This section examines the validity of some of those claims.

A. Objective Economic Measurement Claims About the Benefits of Growth

1. Personal Income

Promoting the growth-and-prosperity relationship, one commentator claimed that: "[i]ncome . . . grew more rapidly in faster growing states than in slower growing states."[4] Another asserted

4. JACK PETREE, WASH. ASS'N OF REALTORS, *Low Growth Can Harm Individuals Economically, in* HOW LACK OF GROWTH HARMS COMMUNITIES OR THE DARK SIDE OF LOW OR NO GROWTH PLANNING POLICIES 1, 2, http://www.warealtor.com/government/qol/policies/LkofGr.pdf. (Petree gives no citation to his assertion.).

that the economic benefits of growth include "Added Jobs and Income" because "[c]onstruction of new housing units and other types of space generates employment and income for the entire community, thereby adding to the region's overall prosperity."[5]

Between 1990 (when the per capita U.S. income average, in constant 1996 dollars, was $22,856)[6] and 2000 (when the U.S. average was $27,712),[7] per capita personal income growth as a percentage of the federal average per capita personal income changed.[8] The following table reflects these changes in the five fastest-growing and five slowest-growing states:[9]

	Fast-growing			Slow-growing	
	1990	2000		1990	2000
AZ	.87	.85	CT	1.36	1.39
CO	1.00	1.10	ME	.89	.86
GA	.91	.94	ND	.81	.83
ID	.81	.80	PA	1.01	1.00
NV	1.05	1.00	RI	1.03	.98
UT	.77	.78	WV	.74	.73
Avg.	.90	.91	*Avg.*	.97	.97[10]

The fast-growing states moved from 90 percent of the federal average in per capita personal income in 1990 to 91 percent in 2000, an increase of 1 percent. The slow-growing states were unchanged. Residents of the fast-growing states did see their personal income increase slightly.

However, Paul D. Gottlieb at the Center for Regional Economic Issues at Case Western University examined the relationship between population and income growth in the 100 largest metropolitan areas (as distinct from states) in the U.S. between 1990-1998. He concurred that fast-growing metropolitan areas showed faster income growth than slow-growing ones and concluded there was some correlation, but it was

> not strong. . . . In fact, statistical analysis reveals a

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5. NAT'L ASS'N OF INDUS. & OFFICE PROPERTIES WITH ANTHONY DOWNS, GROWING TO GREATNESS, app. 1, at 62 (1999), *available at* http://www.naiop.org/governmentaffairs/growth/NAIOP5.PDF [hereinafter DOWNS].

6. U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2003, 447 (123d ed. 2003).

7. *Id.*

8. *See id.*

9. Determination of the five fastest-growing and five slowest-growing states was based on collected U.S. Census Bureau data which was compiled by the State of Oklahoma. *See* Population Growth Fifty State Rankings, 1990 to 2000, http://www.state.ok.us/osfdocs/graphs.pdf (last visited Feb. 19, 2008) [hereinafter Population Growth Rankings].

10. U.S. CENSUS BUREAU, *supra* note 6, at 447.

> very weak positive relationship between per capita income and population growth. Not only is this relationship weak, but if Austin, Texas and Las Vegas, Nevada were removed from the sample it would disappear. . . . [T]he relationship that exists depends on only two cases.[11]

And, insofar as population increases comes from immigration, such population growth "lower[s] average wages among natives working in manual labor occupations" (but not in higher-skilled jobs).[12]

Regarding *disposable* per capita income, one commentator asserted that rapidly-growing states provide their residents with "significant enhancements in spendable income."[13] Here is data relevant to comparing disposable personal income per capita in constant 1996 dollars by state from 1990 to 2002 as compared to the federal average:

	Fast-growing			Slow-growing	
	1990	2000		1990	2000
AZ	88.4	87.7	CT	135.1	131.1
CO	100.5	110.9	ME	89.9	88.3
GA	90.4	94.4	ND	84.5	88.7
ID	81.8	82.3	PA	101.4	100.4
NV	104.4	103.3	RI	103.1	98.4
UT	77.1	81.7	WV	75.8	76.7
Avg.	90.4	93.3	*Avg.*	98.3	97.2[14]

The fast-growing states' residents saw a 2.9 percent gain over the federal average in personal disposable income during the decade; the slow-growing states saw a 1.1 percent loss over the federal average. The residents in fast-growing states saw their disposable income increase by 4 percent of the federal average compared to the slow-growing states. The federal average in 2000 was $23,194.[15] Residents in the fast-growing states gained about $93.00 per year during this decade by living in fast-growing states

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11. PAUL D. GOTTLIEB, BROOKINGS INST. CNTR. URBAN & METRO. POLICY, GROWTH WITHOUT GROWTH: AN ALTERNATIVE ECONOMIC DEVELOPMENT GOAL FOR METROPOLITAN AREAS 3 (2002), *available at* http://www.brookings.edu/~/media/Files/rc/reports/2002/02useconomics_gottlieb/gottlieb.pdf.

12. Pia M. Orrenius & Madeline Zavodny, *Does Immigration Affect Wages? A Look at Occupation-Level Evidence* 3 (Fed. Reserve Bank of Atlanta Working Paper Series, Working Paper 2003-2a, 2003), *available at* http://www.frbatlanta.org/filelegacydocs/wp0302a.pdf.

13. PETREE, *supra* note 4, at 2.

14. U.S. CENSUS BUREAU, *supra* note 6, at 448 ("Disposable personal income is the income available to persons for spending or saving; it is calculated as personal income less personal tax and nontax payments.").

15. *Id.*

compared to their countrymen living in slow-growing states.

However, Matthew E. Kahn of the Fletcher School of Law and Diplomacy, in laborious regression analyses, examined growth in various California metropolitan areas (not states) between 1980 and 1990, testing wage and rental rates. A fast-growing (popular) place "should feature lower wages [because of the large number of people moving in to take jobs] and higher rents [because of a shortage of housing] than low quality-of-life cities."[16] Again, the pro-growthers would say wages in fast-growing places would go up, a claim somewhat borne out by the analysis above. Kahn found "no evidence that wages have increased in fast-growing areas," contradicting the pro-growthers.[17] However, he does not claim that they have fallen. Further, he found that "fast-growing areas have experienced less real estate appreciation than slower-growth areas within California."[18] Rents decreased relatively, which suggests fast-growing areas in California may be less attractive than slow-growing ones.[19]

InContext, a publication of the Indiana University Partnership for Economic Development, offers "substantive articles on the Indiana economy in context within the state and the nation."[20] In examining per capita income growth in the late 1990s, it concluded (in a "technical note") as follows:

> Growth in population and total personal income are positively correlated, particularly over long periods of time. But it is far from a perfect relationship. For the 10 years from 1988 to 1998, the correlation for the 50 states between personal income and population growth rates was +0.89 (where +1.00 is a perfect positive relationship, zero is no relationship and -1.00 is a perfect negative relationship). But for the year 1998, the correlation was just +0.62, an unimpressive relationship.[21]

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16. Matthew E. Kahn, *City Quality-of-Life Dynamics: Measuring the Costs of Growth*, 22 J. REAL ESTATE FIN. & ECON. 339, 340 (2001).

17. *Id.* at 343.

18. *Id.*

19. *See id.* at 346.

20. About InContext, http://www.incontext.indiana.edu/about.html (last visited Feb. 19, 2008).

21. *Per Capita Income: Regions of the Nation*, INCONTEXT, July 2000, at 5, *available at* http://www.incontext.indiana.edu/2000/july00/articles/2_news.pdf.

2. Jobs

It is claimed that growth provides for "Added Jobs and Income,"[22] and that "[r]eal estate . . . creates jobs and economic activity that benefits us all."[23] Indeed, to promote income growth, policy makers often try to grow jobs, which is thought to increase prosperity.[24] However, Paul Gottlieb recognizes three problems with this traditional approach.[25] "First, there is no obvious relationship between jobs and incomes, since new jobs can pay poorly and may even reduce average earnings in a region."[26] Second, some new jobs certainly go to the local unemployed or underemployed, but there is no guarantee that jobs won't go to immigrants,[27] and there is no useful relationship between population growth and decreasing unemployment. People move to places where they think job growth is happening,[28] and in those places the unemployment rate may decrease, stay the same, or worsen. The question is not whether growth creates jobs, but whether growth reduces local unemployment. A generation ago—in his seminal 1976 treatise on growth—Harvey Molotoch wrote:

> As jobs develop in a fast-growing area, the unemployed will be attracted from other areas in sufficient numbers not only to fill those developing vacancies but also to form a work-force sector that is continuously unemployed. Thus, just as local growth does not affect aggregate employment, it likely has very little long-term impact upon the local rate of unemployment. Again, the systematic evidence fails to show any advantage to growth: there is no tendency for either larger places or more rapidly growing ones to have lower unemployment rates than other kinds of urban areas. In fact, the tendency is for rapid growth to be associated with higher rates of unemployment.[29]

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22. DOWNS, *supra* note 5, app. 1, at 62.

23. Dewayne Granacki, *Region's Vitality Hinges On Accommodating Growth,* PUGET SOUND BUS. J., Dec. 27, 2002, *available at* http://www.bizjournals.com/seattle/stories/2002/12/30/editorial3.html?page=1.

24. *See* GOTTLIEB, *supra* note 11, at 4.

25. *Id. at 5.*

26. *Id.*

27. *Id.*

28. *See id.*

29. Harvey Molotch, *The City as a Growth Machine: Toward a Political Economy of Place*, 83 AM. J. SOC. 309, 320-21 (1976).

Lastly, Gotlieb asserts that job growth "increases the number of bodies in a jurisdiction."[30] This is necessarily "associated with increased infrastructure costs, increased resource use," and—to some people's eyes, at least—a perception that the quality of life is declining.[31]

As to the assertion that population growth provides construction jobs,[32] of course population growth requires the construction of new houses and other buildings, but it is not necessarily true that this means any long-term (or even medium-term) increase in job-related prosperity. Further, it is certainly incorrect that faster growing places provide sustained wage or income growth in the construction industry.

First, fast-growing areas often attract out-of-area contractors. D.R. Horton, for example, bills itself as "a National Leader in the residential home building industry."[33] It prospers by "seeking out the [n]ation's most active homebuilding markets,"[34] buying up large tracts of land, and constructing hundreds of houses. Firms like Horton run small local construction firms out of business:

> As a young man, Donald J. Tomnitz watched the arrival of Wal-Mart Stores Inc. doom his aunt's local drugstore in Mexico, Mo. Today, as chief executive of one of America's biggest home builders, D.R. Horton Inc., Mr. Tomnitz likes to compare his company to the steamroller that put his aunt out of business.
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> . . . .
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> Five years ago, the top 10 home builders controlled only about 10% of the U.S. market. Now their share is about 25%, and the big builders predict it will top 50% within a decade. The top 10 had combined revenue of about $73 billion in 2004, up from $13 billion a decade earlier, according to Builder magazine, a trade publication.[35]

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30. GOTTLIEB, *supra* note 11, at 5.

31. *Id.*

32. DOWNS, *supra* note 5, app. 1, at 62; Robert W. Wassmer & Marlon G. Boarnet, *The Benefits of Growth* 9 (Urban Land Inst., Working Paper on Land Use Policy, 2002), *available at* http://www.csus.edu/indiv/w/wassmerr/benefitsofgrowth.pdf.

33. D.R. Horton - America's Builder, How We Build, http://www.drhorton.com/corp/index.jsp?redirect=howBuildDef (last visited Feb. 19, 2008).

34. *Id.*

35. James R. Hagerty & Kemba J. Dunham, *Property Boom: How Big U.S. Home Builders Plan to Ride Out a Downturn; D.R. Horton Keeps Costs Low as It Takes on Small Rivals in 'Pick-Up Truck' Markets; Skepticism on Wall Street*, WALL ST. J., Nov. 30, 2005, at A1.

Some of this construction work is made available to local contractors, but locals in the industry—in the author's hometown, at least—express concern that "D.R . Horton's arrival mean[s] profits . . . leave the community," and that its development is "bad for local builders."[36] "Like Wal-Mart, D.R. Horton uses its heft to negotiate lower prices for supplies such as roofing materials, door frames and appliances"[37]; profits for such suppliers—from local and non-local sources—are necessarily reduced accordingly.

Second, the construction industry is known for its boom-and-bust cycles. The recent housing boom will bust (or has busted) and some estimates indicate that up to 800,000 jobs in the construction and financial sectors will be lost.[38] In August, 2007, 21,000 employees in the housing industry lost their jobs.[39] The former construction and finance workers will, of course, no longer "add[] to the region's overall prosperity."[40] If they do not relocate upon unemployment, they could potentially drive down working-class wages. It would be as accurate to say that fast-growing places are set up for a big construction-related job downturn as it would be to say that growth promotes construction-related employment.

Population growth does increase the number of people with jobs. But, it does not necessarily lower the unemployment rate or increase workers' prosperity.

3. Budget Growth and Taxes

Arguing that growth is good economically, one commentator asserted that per capita, fast-growing states' budgets expanded more slowly than slow-growing states during the 1990s.[41] If growth were as expensive as its detractors claim, fast-growing states' budgets would have expanded more per capita than slow-growing ones; they would spend more per capita.[42] Here is relevant data:

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36. Aubrey Cohen, *National Company Buys Land Parcel*, BELLINGHAM HERALD, April 17, 2005, at 1A.

37. Annette Haddad, *Building From A Giant's Blueprint; D.R. Horton Has Applied Wal-Mart's Approach of Size and Pricing Power to the Housing Industry to Become the Biggest Builder in the U.S.*, L.A. TIMES, Dec. 5, 2004, at C1.

38. Alex Veiga, *Housing Slowdown May Claim 800,000 Jobs*, WASHINGTONPOST.COM, Dec. 7, 2005, http://www.washingtonpost.com/wp-dyn/content/article/2005/12/07/AR2005120700222.html.

39. Ron Scherer & Ben Arnoldy, *Layoffs Spreading in the Housing Industry,* CHRISTIAN SCI. MONITOR, Aug. 23, 2007, at 1.

40. DOWNS, *supra* note 5, app. 1, at 62

41. PETREE, *supra* note 4, at 1.

42. *Id.*

State and Local Direct General Expenditures, Per Capita, Indexed to U.S. Average, 1992-2002[43]

	Fast-growing			Slow-growing	
	1992	2002		1992	2002
AZ	83	81	CT	123	110
CO	98	95	ME	100	109
ID	82	83	ND	103	101
GA	86	87	PA	97	97
NV	103	90	RI	123	109
UT	83	89	WV	86	90
Avg.	89	87	*Avg.*	105	103

In this time period,[44] the slow-growing states showed a decrease of 1.5 percent compared to the national average in per capita state and local expenditures; the fast-growing states showed a decrease of 2 percent compared to the national average. These statistics bear out the assertion that fast-growing states spend less per capita than slow-growing ones. However, the difference is small.

Regarding taxes, and further supporting the assertion that "growth is good," one commentator claimed that "citizens in slower growing states experience increased tax burdens. In faster growing states tax burdens grow more slowly."[45] As the following data indicates, this is true on the average:

Combined State and Local Tax Collections as Percent of Income, Compared to U.S. Average[46]

	Fast-growing			Slow-growing	
	1990	2000		1990	2000
US	10.3	10.5		10.3	10.5
AZ	11.7	10.4	CT	9.8	11.2
CO	10.2	9.7	ME	11.6	13.2
ID	10.2	11.0	ND	9.5	10.1
GA	10.3	10.5	PA	9.3	10.0
NV	9.5	9.4	RI	10.5	11.7
UT	10.7	11.3	WV	10.0	10.7
Avg.	10.4	10.4	*Avg.*	10.0	11.2

43. BROOKINGS INST. TAX POLICY CTR., STATE AND LOCAL DIRECT GENERAL EXPENDITURES, PER CAPITA, SELECTED YEARS 1997-2005 (2007), http://www.taxpolicycenter.org/taxfacts/displayafact.cfm?Docid=523 (last visited Apr. 13, 2008).

44. The years featured are not, obviously, exactly the decade previously used for analysis: they are off by two years.

45. PETREE, *supra* note 4, at 2.

46. THE TAX FOUNDATION, STATE AND LOCAL TAX BURDENS COMPARED TO OTHER U.S. STATES, 1970-2007, http://www.taxfoundation.org/files/burden_by_year_all_states-2007-04-04.pdf (last visited Feb. 18, 2008).

Here, the fast-growing state residents saw the percent of their income taxed by state and local collectors unchanged in the decade, and decrease by 0.1 percent compared to the U.S. average; the slow-growing state residents saw the percent of their income taxed increase by 1.2 percent, which was 0.7 percent over the federal average. In 2000, the per capita U.S. income was $21,587;[47] a fast-growing state resident would have paid about $2,245 in state and local taxes; a slow-growing state resident would have paid $2,417. Thus, in 2000, a slow-growing state resident would have paid about $172 more in state and local taxes per capita than a resident in a fast-growing state.

While it is true that the "[a]ddition of more people . . . generates more sales taxes for state and local governments" and the "[a]ddition of new properties to the assessed value base of a community increases its ability to raise public funds through property taxes,"[48] it is also true that the addition of more people generates more demand for government services.

Insofar as these analyses of tax and budget are considered statewide, there is, of course, the problem that states are large and diverse geographic areas. For example, Washington State, King County (the greater Seattle area) has a total area of 2,126 square miles and a per capita personal income of $45,334.[49] The area is groaning under growth-related problems, particularly traffic congestion.[50] Meanwhile, Okanogan County (east of the Cascade Mountains) has a total area of 5268 square miles, a per capita personal income of $23,095,[51] and only a single traffic light.[52] So, if Washington's statewide budget or taxes are described as increasing or decreasing with growth in population, the information is not very useful to describe how people are actually affected.

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47. U.S. CENSUS BUREAU, FACT SHEET: UNITED STATES CENSUS 2000 DEMOGRAPHIC PROFILE HIGHLIGHTS (2000), http://factfinder.census.gov/servlet/SAFFFacts?_sse=on (last visited Apr. 13, 2008).

48. DOWNS, *supra* note 5, app. 1, at 62.

49. WASH. STATE OFFICE FIN. MGMT, 2005 DATA BOOK, KING COUNTY, http://www.ofm.wa.gov/databook/pdf/king.pdf (last visited Feb. 18, 2008) (per capita income based on 2003 findings).

50. Cathy Cole, *Teleworking One Answer to Traffic Problems,* PUGET SOUND BUS. J., May 12, 2000, *available at* http://seattle.bizjournals.com/seattle/stories/2000/05/15/editorial3.html ("It is not news that we live in one of the most traffic-congested areas in the nation . . . .").

51. WASH. STATE OFFICE FIN. MGMT, 2005 DATA BOOK, OKANOGAN COUNTY, http://www.ofm.wa.gov/databook/pdf/okan.pdf (last visited Feb. 18, 2008) (per capita income based on 2003 findings).

52. There is one traffic light at Omak; there are three overhead flashing red light stoplights in the county. (Author's experience in Okanogan County).

4. *Growth Pays Its Own Way*

The assertion that income, jobs, government budget growth, and taxes all favor faster-growing jurisdictions gets to the broader point that growth pays its own way. In the words of one commentator, "[o]ne important conclusion that seems to be particularly clear is that the claims made by some that the broader society pays a high price for growth with newcomers benefiting at the expense of existing residents are simply not true." [53] The claim that growth pays its own way remains, however, very problematic. As noted by the Oregon Governor John Kitzhaber's *Task Force on Growth*, "[f]ew, if any studies, have been able to adequately address this overarching question. There are many reasons, but the key one is that growth has too many dimensions to measure."[54]

In a study of the greater San Antonio area, the American Farm Trust (AFT) found that "[o]n average residential lands demand more in service costs, including schools, public safety, road maintenance and water/wastewater, than they provide in revenue. Conversely, agricultural lands and open space create a surplus for Bexar County—generating more than six times more revenue than what the county spends on them."[55] "[C]ows don't go to school and cucumbers don't call 911," observed the AFT,[56] and this finding that new growth does not pay its own way is consistent with other studies undertaken by the AFT.[57] However, the AFT's methodology, which is commonly described as the "cost of community services" approach,[58] has been criticized for various reasons including inadequate or incomplete local government records on the allocation of revenues and expenditures, inability or unwillingness "of

53. PETREE, *supra* note 4, at 3.

54. GOVERNOR'S TASK FORCE ON GROWTH, GROWTH AND ITS IMPACT IN OREGON: A REPORT FROM GOVERNOR KITZHABER'S TASK FORCE ON GROWTH IN OREGON 4-5 (Jan. 1999) [hereinafter GOVERNOR'S TASK FORCE].

55. AM. FARMLAND TRUST, COST OF COMMUNITY SERVICES: THE VALUE OF FARMLAND AND OPEN SPACE IN BEXAR COUNTY, TEXAS (2004), *available at* http://www.farmland.org/programs/states/documents/AFT_BexarCounty_COCS.pdf [hereinafter BEXAR COUNTY].

56. Am. Farmland Trust, Michigan, Cost of Community Services Study Affirms Tax Savings, http://www.farmland.org/programs/states/mi/default.asp (last visited Feb. 19, 2008).

57. *See, e.g.*, AM. FARMLAND TRUST, COST OF COMMUNITY SERVICES: SKAGIT COUNTY, WASHINGTON 6 (1999), *available at* http://www.skagitonians.org/upload_pubs/aft=spf_.pdf [hereinafter SKAGIT COUNTY]; AM. FARMLAND TRUST, REVIEW OF FISCAL IMPACT STUDIES RELEVANT TO THE HIGHLANDS REGION OF MASSACHUSETTS 2 (2001), hci.thetrustees.org/documents.cfm?documentID=174 ("[I]n the short run, development increases the tax base by adding property value, whereas land protection does not provide additional tax revenue and may reduce the tax base. However, in the long term, they find that open land requires a much lower level of services than developed land, limiting increases to municipal budgets and associated spending over time.").

58. *See generally* BEXAR COUNTY, *supra* note 55; SKAGIT COUNTY, *supra* note 57.

local staff and officials to participate in interviews and help in the allocation process," the questionable objectiveness of the analyst conducting the analysis, and inappropriate grouping of land uses.[59]

A study by Jeffrey Dorfman, et al. at the University of Georgia concluded that "a growing body of empirical evidence shows that while commercial and industrial development can indeed improve the financial well being of a local government, residential development worsens it."[60] James F. Dewey at the University of Florida examined whether conventional residential development pays its share of public costs in Alachua County, Florida, and concluded that it does; "the typical new household pays *more* than its share of infrastructure costs by $3,114."[61] A less sanguine analysis came from Daphne Greenwood, asking the same general question about Colorado Springs—whether growth pays for itself. Dr. Greenwood reported that Colorado Springs' population increased by sixty-eight percent from 1980 to 2000, while the developed land area increased by thirty-two percent.[62] The increased density contributed to lower per capita spending on roads because the population was more compact.[63] Notwithstanding, "commute time to work increased and a substantial infrastructure backlog was reported at the end of the period."[64] Revenues per capita fell during the period while the public safety budget increased.[65] Roads, drainage and traffic engineering funding decreased.[66]

Anthony Downs claims that the "[a]ddition of new properties to the assessed value base of a community increases its ability to raise public funds through property taxes, and thereby to support needed public services."[67] Surely this is true, but the question is

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59. ANNA HAINES, ET AL., UNIV. WIS. CONSORTIUM FOR EXTENSION & RESEARCH IN AGRIC. & NATURAL RES., THE IMPACT OF AGRICULTURAL USE VALUATION ON THE COST TO PROVIDE SERVICES TO WISCONSIN COMMUNITIES 3, http://www.uwsp.edu/cnr/landcenter/COCS/COCS%20Consortium%20Project.doc (last visited Mar. 20, 2008).

60. JEFFREY H. DORFMAN, ET AL., UNIV. GA. CTR. FOR FOREST BUS., THE ECONOMIC COSTS OF DEVELOPMENT FOR LOCAL GOVERNMENTS (2002), http://www.warnell.uga.edu/h/centers/cfb/files/10.pdf.

61. JAMES F. DEWEY & DAVID A. DENSLOW, UNIV. FLA. BUREAU OF ECON. & BUS. RESEARCH, GROWTH AND INFRASTRUCTURE IN ALACHUA COUNTY: DOES CONVENTIONAL DEVELOPMENT PAY ITS SHARE OF PUBLIC COSTS? 4 (2001), http://www.bancf.com/growth_ infrastructure.pdf. It is noted that "Dewey conducted a portion of the research reported here while working as a consultant for the Gainesville Builders Association." *Id.* at 1. The study looked only at infrastructure costs, not schools, police, fire, etc. *See generally id.*

62. DAPHNE GREENWOOD WITH KATIE WILLIAMS, UNIV. COLO. AT COLO. SPRINGS CTR. FOR COLO. POLICY STUDIES, DOES GROWTH "PAY FOR ITSELF" THROUGH INCREASED REVENUES OR DECREASED COSTS PER PERSON? AN ANALYSIS OF THE CITY OF COLORADO SPRINGS, 1980-2000 4 (2003), http://web.uccs.edu/ccps/payingforgrowth.colospgs.ccps.pdf.

63. *See id.*

64. *Id.*

65. *Id.* at 5.

66. *Id.*

67. DOWNS, *supra* note 5, app. 1, at 62.

whether the new money is sufficient to cover the costs associated with the development. The City of Redmond, Washington examined the costs of new development in a 1997 study.[68] It found that providing customary municipal service to single-family houses cost more than the revenue generated from taxing each unit; multi-family dwellings showed an even greater disparity between revenue generated and costs.[69] Office, industrial, commercial, and "other," however, generated more revenue than cost.[70]

Elena Irwin and Dave Kraybill, at Ohio State University, refine the issue somewhat in their paper, *Costs and Benefits of New Residential Development*. They point out that whether growth pays its own way depends upon "the current level and available capacity of existing community services."[71] For example, if the existing schools are not full, new students coming from new housing developments will cause relatively little capital expenditure.[72] If the schools are full and the newcomers trigger the necessity to build additional schools, the cost to the community is obviously much higher.[73] Similarly, if there is excess capacity on existing roads, more traffic is easily and cheaply absorbed.[74] If the roads are at their acceptable capacity such that new traffic must be accommodated by significant road improvement, the cost is high.[75] Also, it seems clear that if new housing developments are compact, the cost of infrastructure needed to service them will be low compared to the cost to service dispersed units.[76] Irwin and Kraybill further note that "[t]he rate of growth can also affect the cost of providing services. Communities that experience very rapid population increases will face higher per capita public service costs if governments are unable to take the time required to identify and finance the least-cost service option."[77]

In their review of studies of the issue, Jeffrey H. Dorfman and

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68. ECON. & PLANNING SYS., INC., PHASE 2 REPORT: COST OF GROWTH MODEL: BASELINE FORECAST AND CASE STUDIES (1997), *available at* http://www.ci.redmond.wa.us/insidecityhall/citycouncil/pdfsfinancial/COGreport/COGfinalreport.pdf.

69. *Id.* at III-4-II-5.

70. *Id.*

71. ELENA IRWIN & DAVE KRAYBILL, OHIO STATE UNIV. DEP'T OF AGRIC., ENVTL., & DEV. ECON., COSTS AND BENEFITS OF NEW RESIDENTIAL DEVELOPMENT (1999), http://www-agecon.ag.ohio-state.edu/programs/ComRegEcon/costsdev.htm.

72. *Id.*

73. *Id.*

74. *Id.*

75. This is the reason that pro-growthers favor expansive infrastructure improvements (a 24" sewer line instead of a 20" line). Expansive improvements make it cheaper to accommodate growth. *See generally Build for Vitality*, POLICY BRIEF (Wash. Research Council, Seattle, Wash.) July 1, 2002, *available at* http://www.researchcouncil.org/publications_container/GMA5%20Build.pdf.

76. IRWIN & KRAYBILL, *supra* note 71.

77. *Id.*

Nanette Nelson from the University of Georgia concluded: "[i]n not a single instance did residential development generate sufficient revenue to cover its associated expenditures, *not in a single location*."[78]

Other commentators have concluded that growth does pay its own way. Dwight Filley, of the Independence Institute, "a free-market think-tank in Golden, Colorado" says:

> Consider a cow pasture that becomes a housing development. Clearly the new families that move in have to have schools, roads, police, and all the rest, and clearly all this costs tax money. But just as clearly, all those new families pay the same rate of property tax, sales tax, income tax, every other kind of tax as families already here. So there is just as much new tax money available as there are new services demanded. If the tax rates paid by old residents are enough to pay for their government services, it seems obvious that the same tax rates paid by new residents will pay for their government services. It comes out even.[79]

And a report prepared by the Austin-based *Impact DataSource for the Urban Choice Coalition*, concluded that in the greater St. Louis, Missouri area, "on-going annual public revenues, using tax rates and budget information primarily for 2002, generated by households in the five subdivisions exceeded the estimated added annual costs for each of the [thirty] local taxing districts in which the subdivisions are located."[80] *The Nation's Building News Online* commented that the study adds credibility to the notion that "housing pays for itself."[81] The study's sponsor, the Urban Choice Coalition, "was formed in 1998 to help counter urban

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78. Jeffrey H. Dorfman & Nanette Nelson, *How Smart is Smart Growth?: The Economic Costs of Rural Development*, *in* CURRENT ISSUES ASSOCIATED WITH LAND VALUES AND LAND USE PLANNING: PROCEEDINGS OF A REGIONAL WORKSHOP 72 (John C. Bergstrom ed., 2002), *available at* http://srdc.msstate.edu/publications/220_1half.pdf. Jeffrey H. Dorfman and Nanette Nelson are from the Department of Agricultural and Applied Economics and the Institute of Ecology, respectively, at the University of Georgia.

79. Dwight Filley, Editorial, *Does Growth Pay Its Own Way?* INDEPENDENCE INST., Sept. 25, 1996, http://www.i2i.org/main/article.php?article_id=461.

80. IMPACT DATA SOURCE, THE FISCAL IMPACT OF FIVE NEW RESIDENTIAL SUBDIVISIONS IN THE GREATER ST. LOUIS AREA 4 (2004), *available at* http://www.urbanchoice.org/ImpactStudy.pdf.

81. *St. Louis Study Adds Credibility to 'Housing Pays for Itself'*, NATION'S BUILDING NEWS ONLINE, July 5, 2004, http://www.nbnnews.com/NBN/issues/2004-07-05/State+and+Local/index.html.

sprawl hysteria with facts on growth and development."[82] The Urban Choice Coalition also sponsored a 2004 study concluding that in the St. Louis area "new growth in the tax base in growing areas . . . was adequate for the school districts to meet their capital needs. New students . . . are not a financial drain on districts in expanding communities."[83]

The Washington Research Council (WRC) asserts that "[g]rowth, obviously, does pay for itself,"[84] for "if urban development did not pay for itself eventually, we would not have 200 million people thriving in our cities."[85] This broad and unsubstantiated assertion is contained in the WRC's *Myths and Facts Regarding the Cost of Growth in Washington*,[86] which primarily is directed to discrediting Eben Fodor's *The Cost of Growth in Washington State*. Fodor, author of the influential book *Better Not Bigger*, concluded that growth does not pay its own way, that "typical residential growth creates a substantial capital cost burden to the local community of approximately $83,000 per new single-family house."[87] Many of these costs, Fodor asserts, "are not being paid directly, but are manifesting themselves in declining levels of service."[88] It is difficult to sort out how the WRC can arrive at such starkly different conclusions from Fodor's. There are no sources or methods for their figures (Fodor cites over 50 studies). However, it appears that the WRC is tabulating every fee, tax, and expenditure as a community fiscal benefit of new housing, and not counting declining levels of service as a cost.

Another study, *Growth and Its Impacts in Oregon*, published in Oregon in 1999 under the auspices of the *Governor's Task Force on Growth*, concluded more moderately that "new residential development directly pays on the order of 50% to 90% of their [sic] capital costs (through developer provided infrastructure, hookup fees, SDCs [system development charges] and other impact fees, special

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82. Urban Choice Coalition Homepage, http://www.urbanchoice.org (last visited Mar. 21, 2008).

83. IMPACT DATA SOURCE, *supra* note 80, at 9.

84. WASH. RESEARCH COUNCIL, MYTHS AND FACTS REGARDING THE COSTS OF GROWTH IN WASHINGTON, http://www.mrsc.org/ArtDocMisc/mythsandfacts.pdf (internal quotation marks omitted) (last visited Feb. 18, 2008).

85. *Id.* (quoting Dr. Richard Morrill, Professor Emeritus, "*The Economics of Growth Management*," address to the Seattle Economists Club, October 11, 2000.) (internal quotation marks omitted).

86. *Id.*; Quality of Life Research Briefs, SPECIAL REPORT*: Myths and Facts Regarding the Costs of Growth in Washington,* http://www.warealtor.com/Government/qol/research_briefs.asp.

87. EBEN FODOR, COLUMBIA PUB. INTEREST POLICY INST., THE COST OF GROWTH IN WASHINGTON STATE, at v (2000), *available at* http://www.fodorandassociates.com/Reports/COG_WA_2000_Exec_Sum.pdf.

88. *Id.*

assessments, exactions, and user charges)."[89] This figure, however, sets aside costs for "schools and major upgrades to the regional transportation system."[90]

Regarding schools, Richard R. Hawkins of the Department of Economics at the University of West Florida examined whether growth paid for itself in Georgia between 1987 and 1998. He concluded as follows:

> [I]t would appear that growth "paid for itself" in the sense that the property tax base increased faster than enrollment and prices. . . .
>
> [H]owever, one finds numerous instances where growth failed to pay for itself. . . .
>
> In total, the likelihood of local property tax base volatility, increasing capital spending, and [large state education grant] funds that are somewhat insensitive to enrollment growth, mean that growth brings risk to a local school system budget.[91]

Dr. Helen F. Ladd of Duke University, a long-time and respected researcher in this area, has examined education policy, state and local public finance, and intergovernmental fiscal relations for thirty years. Ladd looked at 247 large counties in 1985, covering fifty-nine percent of the population of the United States.[92] She concluded that population growth does pay for itself at first, where the population density is low, but as density increases, growth becomes less and less sustainable.[93] In a laborious analysis, Ladd concluded that "except in sparsely populated areas, higher density typically increases public sector spending. In addition, the results suggest that rapid population growth imposes fiscal burdens on established residents in the form of lower service levels."[94] Here accompanying is Ladd's figure showing government expenditures on the vertical axis and population growth on the horizontal axis.[95]

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89. GOVERNOR'S TASK FORCE, *supra* note 54, at 4-1.

90. *Id.*

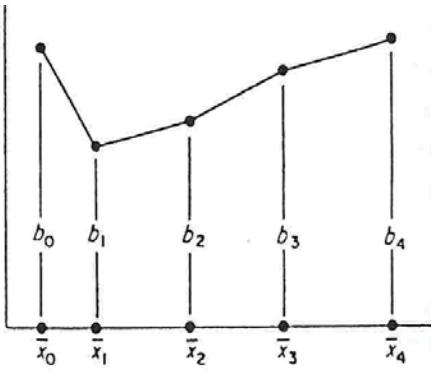
91. RICHARD R. HAWKINS, FISCAL RESEARCH CTR., DOES GROWTH PAY FOR ITSELF? PROPERTY TAX TRENDS FOR SCHOOL SYSTEMS IN GEORGIA 24 (2002), *available at* http://aysps.gsu.edu/frc/files/report67.pdf.

92. Helen F. Ladd, *Population Growth, Density and the Costs of Providing Public Services*, 29 URB. STUDIES 273, 274 (1992).

93. *Id.* at 292-93.

94. *Id.* at 273.

95. *Id.* at 277.



5. *Housing Costs*

One of the most common assertions is that the more unrestrained growth, the less expensive the housing; or, rephrased, that growth containment policies drive up the cost of housing.[96] Wherever they are imposed, critics claim, "they rapidly made housing unaffordable to low- and middle-income families,"[97] and "[r]estricting supply has already forced up the price of homes as well as vacant land—and it will keep out the economic vitality we so desperately seek."[98] There is a great deal of literature on this point, but the assertion cannot be demonstrated. Disinterested analysts are unable to sort out whether growth constraints or market forces drive up housing prices. One team of researchers looked at Washington State and concluded, "[i]n short, Washington could have made significant gains in affordability, all other factors held constant, in the absence of its growth-management law."[99] Another team found growth management in Portland, Oregon has "probably not" precipitated an affordability crisis in the city; there has been some "upward pressure on prices, [but the] effect has been fairly modest."[100] Another researcher concluded that "growth management literature cannot prove a direct correlation between urban growth boundaries and the rising cost of housing, and concedes that market forces may be the stronger factor."[101]

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96. *See* Randal O'Toole, *Managing Growth Can Hurt More Than it Helps,* Make EARTH A Better Place, www.makeearthabetterplace.org/managinggrowth.htm.

97. *Id.*

98. Granacki, *supra* note 23.

99. Samuel R. Staley & Leonard Gilroy, *Smart Growth and Housing Affordability: Evidence from Washington State*, REASON PUBLIC POLICY INSTITUTE, May 2003, *available at* http://www.washingtonpolicy.org/GovtRegulations/PBRPPIGrowthManagement.html.

100. Justin Phillips & Eban Goodstein, *Growth Management and Housing Prices: the Case of Portland, Oregon,* 18 CONTEMP. ECON. POL'Y 334, 342 (2000).

101. Mary E. Martin, The Impact of the Growth Management Act on the Availability of Affordable Housing in King County, Washington 63 (2003) (unpublished master's thesis,

About all that does seem clear here is that the market will not provide affordable housing without government assistance.

6. Economic Measurements Are Poor Indicators of Community Welfare

So far, six fairly specific economic assertions supporting the position that "growth is good" have been examined: (1) growth increases personal income; (2) growth increases disposable income; (3) growth provides jobs; (4) growth reduces government budget growth and taxes; (5) growth pays its own way; and (6) constraints on growth increase housing costs and, by implication, unconstrained growth decreases housing costs. Growth, therefore, is good. And because this kind of growth means conversion of land use from less to more intense, more intense land use is good also, or at least necessary and laudable.

Regarding jobs, everyone can probably agree on one point: It is clear that fast-growing places do not have lower unemployment than slow-growing ones simply because new jobs created by growth do not necessarily go to existing residents. Researchers continue to debate whether growth constraints drive up housing prices. Those who claim they do appear to have an interest in making the argument. Beyond that, the claims that residents in fast-growing areas have more income and pay less in taxes seem correct if gross statewide census statistics are examined.

The larger point, however, is that these economic measurements do not tell us, despite growth advocates' claims to the contrary, whether things are getting better or worse, whether life is more or less livable with growth, and, as such, whether transforming the landscape from natural to manmade, with all its accompanying biological consequences, is worth it.

Disposable income is a similarly problematic indicator. If population growth has increased, but the number of police officers has not increased proportionally, people may buy personal firearms, build gated compounds, or employ private security devices. Now is their disposable income up or down?

Even if there were a significant difference in tax rates or state budget growth between slow- and fast-growing states, it would not help much in telling us whether citizens are in a better or worse position economically (not to mention non-economically). If fast-growing jurisdictions with decreasing per capita expenditures or flat or reduced tax rates are not keeping up with the demand for

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University of Washington Bothell) (on file with author).

services, citizens will see level-of-service declines. Certainly it is true that in a fast-growing jurisdiction there are more taxpayers to share the cost of funding the municipality. However, absent any information on whether that fast-growing place *also* kept its amenities and infrastructure up to the same standards as before its growth spurt, we do not know whether its residents are better served or not. If levels of service decline in fast-growing jurisdictions, the fact that their budget growth is relatively small compared to slow-growing states does not tell us whether these are good places to live.

For example, "Nevada's astonishing population growth - 66.3 percent in the 1990s, according to the 2000 Census - has led most lawmakers to agree to dramatic spending increases."[102] However, "most" is not enough in Nevada, which "requires two-thirds of both houses to vote for new taxes."[103] The legislature has not increased taxes since 1991 and the state, which is in the top ten nationally in per capita wealth, is suffering from deteriorating public schools.[104] Nevada "spends $1000 less per pupil than the average US state and ranks at the bottom in most measures of student performance and funding for the poor."[105] Maintaining a per capita tax rate that was adequate for the 1991 population was inadequate for the 2003 population.[106] Growth is certainly increasing tax-collection revenues, but it is also increasing costs. These costs are not reflected in citizens' out-of-pocket books expense (tax increases), but rather in decreasing school quality.

Next door in Arizona, the population increased by forty percent during the last decade.[107] Arizona law exempts popular "wildcat" subdivisions "from basic county building requirements, such as putting in roads, sewers, and sidewalks."[108]

> Pima, the state's largest urban county, has been adding an average of about 17,000 new residents yearly since 1970, and topped 20,000 last year. County officials here say that continuing to house

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102. Steve Friess, *Nevada's Growth Tests an Antitax Creed*, BOSTON GLOBE, June 25, 2003, at A5.

103. *Id.*

104. *Id.*

105. *Id.*

106. *See id.*

107. Mark Robichaux, *Just Deserts? Arizona's Rural Sprawl: Fast Growth Spawns 'Wildcat' Subdivisions—To Some, Unregulated Areas Are a Symbol of Liberty, But Services Are Scarce—The Streets With No Names,* WALL ST. J., Jan. 30, 2001, at A1. As noted earlier, Arizona is the second fast-growing state in the United States. *See* Population Growth Rankings, *supra* note 9.

108. Robichaux, *supra* note 107.

> arrivals at that rate would require 70 additional square miles of development over the next 20 years—a crushing footprint on a fragile desert ecosystem.[109]

"While wildcat residents pay the same property tax rate as others in the county, the per capita revenue from wildcat areas is far lower" because the real estate and mobile-home housing units are much less valuable.[110] The newcomers do not pay for the services they need nor do they get the services.[111] Enormous clouds of dust rise up from unpaved roads and traffic and noise are terrible.[112] Sheriff's deputies and ambulance crews struggle to find addresses on unmarked roads and fire trucks "must slow to five miles an hour as they lurch through washboardlike ruts on their way to blazing houses."[113] One resident sadly commented "'I have watched this place deteriorate.'"[114] Certainly an increase in taxation could address the shocking shortcomings caused by population increase in these "wildcat" subdivisions, but it would take "as much as $55 million a year . . . money the county doesn't have."[115]

The economic costs of population growth effectively show up in five ways: increased taxes, increased debt (municipal bonds), infrastructure deterioration, facility maintenance deficit, and a reduction in public services (level of service decline). To focus only on budget and taxation, then, is not a full analysis. It may be correct that "citizens already living in a [fast-growing] region see their tax loads grow more slowly than they would have absent the growth,"[116] especially if they decline to tax themselves. Consider "the expanding, unincorporated desert community of Troon," just north of Scottsdale.[117] Because of a loophole in state law, wealthy homeowners in the fast-growing region who had no school-age children avoided paying school taxes by voting to create a school district without schools, forcing the costs of education onto neighboring communities.[118]

If growth brings a decrease in taxes, people are not necessarily better off economically. It depends on what the community was

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109. *Id.*
110. *Id.*
111. *Id.*
112. *Id.*
113. *Id.*
114. Robichaux, *supra* note 107.
115. *Id.*
116. PETREE, *supra* note 4, at 2.
117. Jennifer Steinhauer, *A School District with Low Taxes and No Schools*, N.Y. TIMES, Feb. 16, 2007, at A14.
118. *Id.*

like to begin with, where and how the growth occurs, and whether necessary public services are being maintained or are deteriorating. Likewise, even assuming it is correct that fast-growing states' budgets expanded less quickly than slow-growing states, that tells us nothing about whether residents in fast-growing places are enjoying a higher quality of life or getting better services than those in slow-growing places. Imagine a fast-growing area where the residents insist that government budgets be kept from excessive expansion.

Consider the fast-growing State of Colorado.[119] In 1992, a citizen's initiative called the Taxpayers' Bill of Rights (TABOR) was adopted.[120] TABOR is a constitutional amendment which "restricts revenue or expenditure growth to the sum of inflation plus population change" and "requires voter approval to override revenue or spending limits."[121] TABOR is a revenue limit not a spending limit.[122] Here are some of the consequences:

> [P]ublic services [in Colorado] have deteriorated significantly. For example, between 1992 and 2001, Colorado declined from 35th to 49th in the nation in K-12 spending as a share of personal income. Colorado now ranks 48th in higher education funding as a share of personal income—down from 35th in 1992. Between 1991 and 2004—a period in which the percentage of children who are uninsured declined nationally—the proportion of low-income children who lack health insurance in Colorado doubled. Colorado now ranks last in the nation on this measure. In addition, between 1992 and 2002, Colorado declined from 23rd to 48th in the nation in access to prenatal care, a sign of funding shortages in local health clinics.[123]

TABOR succeeded in both slowing the state's budget growth in the face of increasing population and decreasing the quality of life in Colorado.[124] As a result, in November, 2005, Colorado voters sus-

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119. Population Growth Rankings, *supra* note 9.

120. Ctr. on Budget & Policy Priorities, TABOR: A Threat to Education, Health Care, and Social Services, What is Tabor?, http://www.cbpp.org/ssl-series.htm (last visited Feb. 19, 2008).

121. *Id.*

122. *Id.*

123. *Id.*

124. *See id.*

pended its application for five years.[125]

It would probably be correct to say that fast-growing areas show—and need—less government budget expenditure if they control or cherry-pick the type of people who constitute the growth. For example, if most of the growth were high-earning young professionals who consumed no educational resources and few subsidized healthcare services, they would not need much government expenditure. In Colorado during the 1990s, the inconvenient problem was that while state and local revenues were restricted, all kinds of people migrated into the state,[126] including, obviously, people drawn by the lure of an expanding economy.[127] "Between 1991 and 2004—a period in which the percentage of children who are uninsured declined nationally—the proportion of low-income children who lacked health insurance in Colorado doubled."[128] Some of the new residents were criminals for whom expanded prisons were required.[129]

Next, consider the slow-growing City of Pittsburg, Pennsylvania. In a short article about that city, Henry Willis observed that in the 1990s it had a two percent population decrease and a four percent employment decrease, but a per capita income growth of fifty percent.[130] Using these statistics, he concluded "[t]here is evidence that long-term prosperity in the Pittsburgh region can be achieved without population growth."[131]

A report published by Oregon Governor John Kitzhaber's *Task Force on Growth*, probably provides the most cogent answer to the question of whether growth pays for itself—"it depends"[132] It depends on the characteristics of the old and new populations, char-

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125. *Id.*

126. Colorado was among the fastest-growing states in the decade. Population Growth Rankings, *supra* note 9.

127. *See* KAREN LYONS & NICHOLAS JOHNSON, CTR. ON BUDGET AND POL'Y PRIORITIES, EDUCATION AND INVESTMENT, NOT TABOR, FUELED COLORADO'S ECONOMIC GROWTH IN THE 1990S 1 (2006), *available at* http://www.cbpp.org/3-23-06sfp.pdf.

128. *The Truth About TOBOR*, YEO FRONTLINE NEWS, (Young Elected Officials Network, Tallahassee, FL), July 2006, at 4, *available at* http://media.pfaw.org/pdf/YEO/YEO_7-06.pdf.

129. "Colorado experienced some of the largest relative growth in terms of prisons during the 1980s and 1990s." From 1979 to 2000 the number of state or federal prisons grew 357 percent; the 10 states with the highest growth in prison construction showed a combined average of 210 percent. Sarah Lawrence & Jeremy Travis, *The New Landscape of Imprisonment: Mapping America's Prison Expansion*, URBAN INSTITUTE JUSTICE POLICY CENTER, Apr. 2004, at 21, *available at* http://www.urban.org/UploadedPDF/410994_ mapping_prisons.pdf.

130. Henry Willis, Opinion, *Forum: Quality, Not Quantity: The Pittsburg Area Doesn't Need a Booming Population in Order to Become More Prosperous, Says Henry Willis*, PITTSBURG POST-GAZETTE, Sep. 26, 2004, *available at* http://www.post-gazette.com/pg/04270/384980-109.stm.

131. *Id.*

132. GOVERNOR'S TASK FORCE, *supra* note 54, app. E, at E-18.

acteristics of the existing and new infrastructure, how growth is distributed within the region, and what governments choose to do about the growth.[133]

B. "Sociological" Claims Regarding the Benefits of Growth

Let us move now from an examination of hard numbers such as income, taxes and budgets to other more sociological-claimed benefits of growth. Interestingly, in their article *The Benefits of Growth,* published under the auspices of the *Urban Land Institute*, Robert W. Wassmer and Marlon G. Boarnet make few claims for growth's hard economic benefits.[134] They claim "growth is necessary just to remain the same. . . . For a place to stay the same size, people, businesses and structures must be replaced."[135] Replacing existing businesses and structures is not growth; it is maintenance. They further claim "growth accommodates federal immigration policy and a birthrate that exceeds a corresponding death rate."[136] The same claim is made by Anthony Downs.[137] It is true that built-environment growth accommodates population growth. However, that does not establish that the growth causes an improvement in quality-of-life or that this growth is any benefit to the existing residents.

Wassmer and Boarnet claim "growth accommodates changes in where we wish to live and work,"[138] and Anthony Downs notes that a bigger population means "a bigger and more diverse labor market" and "a larger housing inventory."[139] Again, certainly it is true that lifestyle choices are fewer in a small city than in a larger one. Whether this qualitative improvement increases indefinitely seems doubtful. Are there enough lifestyle choices in a city of 50,000, or is a population of five million necessary? What about twenty-five million? Certainly existing residents may find that their quality of life decreased as "popular locations grow to ac-

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133. *Id.*

134. *See generally* Wassmer & Boarnet, *supra* note 32. They do, however, make these claims: "[g]rowth [g]enerates [n]ew [j]obs, [n]ew [i]ncome, [n]ew [t]ax [r]evenue, and [h]igher [p]roperty [v]alues." *Id.* at 8. This is all correct, but note that the claim is *not* that growth decreases unemployment, or increases per capita income, or that the new income and new tax revenue are sufficient to offset the demands created by the newcomers' relocation. Further, while it may be that growth increases property values, it also tends to disserve young families, poor people, and existing residents who find their property taxes increasingly burdensome.

135. *Id.* at 6 (capitalization differs from original document).

136. *Id.* at 7 (capitalization differs from original document).

137. DOWNS, *supra* note 5, app. 1, at 62.

138. Wassmer & Boarnet, *supra* note 32, at 8 (capitalization differs from original document).

139. DOWNS, *supra* note 5, app. 1, at 63.

commodate the desires of those wishing to move there."[140] There are many large cities to accommodate those wanting big city choices about where to live and work. One may wonder whether it is necessary to transform small towns into large ones merely to provide newcomers with such choices at the expense of existing residents.

Wassmer and Boarnet claim that "growth can generate greater opportunities for smart-growth revitalization."[141] "Smart growth" is the urban planning concept that promotes the development of compact, walkable, well-planned urban areas.[142] Smart growth is better than dumb growth (sprawl), but this urban planning concept is a *reaction* to problems created by growth in the first place. Smart growth is designed to make a fast-growing place more tolerable than it would otherwise be.[143]

Further, Wassmer and Boarnet assert that "larger size means greater economies of scale in production" so that big cities can afford hiking or biking trails, professional sports teams, symphonies, and the like.[144] However, smaller towns often do not need many hiking or biking trails paid for by tax dollars because residents have access to rural amenities such as open space and rural roads. Small-town residents do not usually have professional sports teams, big symphonies, playhouses, and world-class museums but they tend to enjoy their local high-school teams and often find their smaller-scale sufficient and entertaining. If these activities are not sufficiently entertaining, sports- and culture-hungry residents can always visit the big cities. While it is true that "larger size means economic benefits derived from clustering" (business clustering, such as Silicon Valley in northern California),[145] such intense business-oriented land uses presents the range of environmental, traffic, and quality-of-life problems that follow from conversion of land from rural to urban uses. Again, existing resi-

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140. Wassmer & Boarnet, *supra* note 32, at 8.

141. *Id.* at 9 (capitalization differs from original document).

142. Smart Growth Gateway, A Smart Growth Primer, http://www.smartgrowthgateway.org/goals.shtml (last visited Mar. 22, 2008).

143. Interestingly, even "smart growth"—much less no growth—is too much for some critical pro-growthers who believe that there should be essentially no constraints at all on growth. Among them is Wendell Cox, a prolific writer and speaker. Smart Growth depends heavily on public transit to reduce sprawl associated with accommodating the automobile. Cox is essentially opposed to all forms of public transit in favor of the automobile. "[T]ransit serves only niche markets and . . . cities are sprawling everywhere. . . . Smart growth is about incoherence. Smart growth is not a vision. Rather, smart growth is a delusion." Smart Growth: Delusion Not Vision: Wendell Cox Closing Statement in the "Railvolution" Debate, http://www.demographia.com/db-sfrailvolu.htm (last visited Feb.19, 2008).

144. Wassmer & Boarnet, *supra* note 32, at 10 (capitalization differs from original document).

145. *Id.* at 11 (capitalization differs from original document).

dents do not necessarily benefit.

Moreover, Helen F. Ladd[146] notes some disadvantages to larger size. Specifically, general and police services exhibit diseconomies to population scale.[147] The larger a city's population, the more difficult it is to organize and coordinate these services.[148] These diseconomies are much stronger for police services than for general services.[149]

The *Urban Land Institute* study announced that growth is inevitable, picked out some things that some people might like about living in a big city, and announced that they are good and desirable.[150] However, the study failed to account for the familiar litany of problems associated with population growth:

> [G]rowth in congestion and the demand for more space for housing and traffic, both side-effects of traditional growth and expansion, are viewed by many people . . . as a threat to their quality of life. After housing and transport, people are also concerned about the impact that further development could have on the countryside, other green spaces and pollution levels.[151]

III. ALTERNATIVE INDICATORS OF COMMUNITY WELFARE

A. The Rationale Behind Measuring Alternative Indicators

Measuring taxes, budgets, and income really gets to measuring the satisfaction of preferences. Under "this tradition the definition of the quality of life of a society is based on whether the citizens can obtain [buy] the things they desire. . . . This approach . . . undergirds much of modern economic thinking."[152] The difficulty here is that traditional analysis only examines certain economic indicators of growth. Specifically, there have been considered various permutations on three: budgets, taxes, and income. How-

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146. Helen F. Ladd was previously noted as a long-time researcher in the area of urban fiscal health. *See* Ladd, *supra* note 92.

147. HELEN F. LADD & JOHN YINGER, AMERICA'S AILING CITIES: FISCAL HEALTH AND THE DESIGN OF URBAN POLICY 93-94 (1989).

148. *Id.*

149. *Id.*

150. *See generally* Wassmer & Boarnet, *supra* note 32.

151. Julie Foley, *The Problems of Success: Reconciling Economic Growth and Quality of Life In the South East* 3 (Inst. for Pub. Policy Research, Working Paper 2, 2004), *available at* http://www.ippr.org/press/files/the%20problems%20of%20success.pdf.

152. Ed Diener & Eunkook Suh, *Measuring Quality of Life: Economic, Social, and Subjective Indicators*, 40 SOC. INDICATORS RESEARCH 189, 190 (1997).

ever, these are seriously incomplete since they do not address *livability*. In their criticism of traditional neo-classical economics, from which this kind of calculus is made, Herman Daly and John Cobb noted as follows:

> What is neglected is the effect of one person's welfare on that of others through bonds of sympathy and human community, and the physical effects of one person's production and consumption activities on others through bonds of biophysical community.[153]

In their 1989 classic, Daly and Cobb strongly criticized conventional measurements of welfare based on the Gross National Product (GNP), observing that there is "a mounting chorus of critics who point out how high the cost of growth of GNP has been in psychological, sociological, and ecological terms."[154] Or, in other words, man does not live by bread alone. Six years later, Clifford Cobb, Ted Halstead, and Jonathan Rowe wrote a long article in *The Atlantic Monthly* tracing the history of this kind of economic measurement and found it measures mere economic activity, whether good or bad, and fails to account for non-market values.[155] Despite these deficiencies, however, conclusions drawn from such measurements drive policy at every level.[156]

With the recognition that focusing on mere economics gives a very imperfect picture of community welfare, there has been—coincident with criticisms of the GDP—a turn to some alternative indicators which can be broken down into three types: two objective indicators and the subjective measurement of personal well-being. The objective indicators measure hard facts, much like the economic facts discussed above. However, there is a difference. The first of these, what has been called "general business indicators," gets less at gross money-measurement, and more at whether there is a reasonably effective community-wide distribution of economic goods (discussed immediately below). The second of the objective indicators assesses a community's success in approaching a more holistic normative ideal of a good society (social indicators). The third kind of alternative indicator, again, measures subjective well-being (SWB). Ruut Veehonven notes that "[t]he objective approach has roots in the tradition of social statistics, which date

153. HERMAN E. DALY & JOHN B. COBB, JR., FOR THE COMMON GOOD 37 (2d ed. 1994).

154. *Id.* at 64 (internal citation omitted).

155. Clifford Cobb, Ted Halstead, & Jonathan Rowe, *If the GDP Is Up, Why Is America Down?* ATLANTIC MONTHLY, Oct. 1995, at 65.

156. *Id.* at 64.

back to the nineteenth century. The subjective approach stems from survey research, which took off in the 1960s."[157]

B. Types of Alternative Indicators of Community Welfare

It might be useful to briefly retrace the argument thus far. The reason for the "environmental problem" is human commercial and business activity of various kinds, including land-use activity, adversely affecting the biosphere. Using traditional economic indicators, pro-growth advocates argue that the benefits of growth outweigh the disadvantages. But the traditional economic indicators are inadequate to tell us whether growth is good. Thus, alternative indicators are employed.

1. Alternative Objective Economic Indicators (General Business Indicators)

Maureen Hart examines the theory and practice of alternative indicators in her *Guide to Sustainable Community Indicators.*[158] She explains why, for example, even median income, as distinct from gross or per capita, is not a very good community-welfare indicator:

> If median income goes up 5%, but the cost of living rises 10%, community economic well-being has declined. . . . A better measure of a sustainable community would look at whether the median income allowed a person to survive based on the average cost of basic needs in that community.
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> . . .
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> If median income goes up 5%, but the rise is due to non-sustainable use of the community's natural resources, then the rise in income is at the expense of the environment. The community is using up its natural capital instead of living off the interest. A better measure would look at the percent of the population whose income comes from non-sustainable use of resources.[159]

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157. Ruut Veenhoven, *Subjective Measures of Well-Being* 1 (United Nations Univ. World Inst. for Dev. Econ. Research, Discussion Paper No. 2004/07, 2004), *available at* http://www.wider.unu.edu/publications/working-papers/discussion-papers/2004/en_GB/dp2004-007/.

158. MAUREEN HART, GUIDE TO SUSTAINABLE COMMUNITY INDICATORS (2d ed. Hart Envtl. Data 1999).

159. *Id.* at 31.

Hart gives examples of alternative general business indicators to supplement the traditional measurements of gross local product, per capita income, net job growth, and so on.[160] Examples include: ecological footprint, hours of work at the average wage to support basic needs, employer payroll dedicated to training and education, percent of employment by top five employers, per capita savings and debt, distribution of personal income, number of persons with satisfactory day-care arrangements, sales of locally-produced food, and the amount of local credit available.[161] Instead of production measures that examine an industry sector's percent of gross local product, housing starts, number of units sold, or dollars earned, Hart notes that some jurisdictions choose alternative measurements such as: percent of material used in production from renewable resources, number of tourism jobs per tourist paying a living wage, acres of farmland or forest managed sustainably compared to managed unsustainably, fish harvest rate compare to growth rate of fishery, or number of housing units built at different income levels compared to number of people at those levels.[162]

2. Alternative Objective Non-Economic Indicators (Social Indicators)

Because even these alternative objective economic measurements do not tell the full story about growth and its effects—that is, community welfare—many researchers and jurisdictions have broadened their view to include social indicators, a second type of objective indicator (there is some overlap in the concepts). Hart lists dozens of such communities in her Appendix B.[163] Social indicators are based on some normative ideals about what constitutes a good society.[164] "Indicators provide a vehicle to understand and address community issues from a holistic and outcomes-oriented perspective," notes David Swain, who identifies four alternative-indicator approaches, discussed below.[165]

The "Quality-of-life indicators" approach (pioneered in Jacksonville, Florida in 1985) is favored by "chambers of commerce, community-based organizations, or other non-governmental bod-

160. *Id.* at 55-57.
161. *Id.*
162. *Id.* at 59.
163. *Id.*, app. B, at 165-175.
164. Ed Diener and Eunkook Suh, *supra* note 153, at 189-191.
165. DAVID SWAIN, JACKSONVILLE CMTY. COUNCIL, INC., MEASURING PROGRESS: COMMUNITY INDICATORS AND THE QUALITY OF LIFE 1 (April, 2002), *available at* http://www.jcci.org/measuringprogress.pdf.

ies."[166] It takes a "broadly defined and balanced set of indicators" and focuses on "improvements which the community has already come to recognize as important and around which some degree of consensus has . . . [developed]."[167] The quality-of-life indicators include education (graduation rates, juvenile delinquency), economy (including percentage of children receiving subsidized meals at school), environment (water and air pollution, motor fuel consumption), social well-being and harmony (philanthropic giving, volunteerism), arts, recreation, culture, health (infant mortality, sexually transmitted diseases), civic participation, transportation, and public safety (crime rates).[168]

The "Indicators of Sustainable Community" approach was started in Seattle in 1993 and focuses heavily on environmental issues in addition to economic and social indicators.[169] *Sustainable Seattle* measures such things as: solid waste generated and recycled, local farm production, vehicle miles traveled and fuel consumption, renewable and nonrenewable energy use, health care expenditures, wild salmon, soil erosion, and children living in poverty, among many others.[170] "Healthy-community indicators" measure health-related issues and often are sponsored by health-care institutions.[171] Benchmarking projects select indicators "that measure extended outcomes related to public services."[172]

Whatever indicator system is used, the idea is to raise consciousness among citizens and community leaders regarding growth effects and to develop and implement plans to address problems revealed by the indicators.

However, there are serious problems with these alternative objective indicators. Foremost, they still do not tell us if growth is worth the price paid. Whether people are better off in big or fast-growing places or in small or slow-growing places depends, of course, on how "better off" is calculated. What are the normative ideals? For example, Petree[173] and Wassmer and Boarnet (and the Urban Land Institute, which sponsored Wassmer's and Boarnet's piece)[174] cite approvingly the popular *Places Rated Almanac* which

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166. *Id.* at 5.

167. *Id.*

168. JACKSONVILLE CMTY. COUNCIL, INC., 2006 QUALITY OF LIFE PROGRESS REPORT 76-77 (2006), *available at* http://www.jcci.org/statistics/documents/2006_quality_of_life_ progress_report.pdf.

169. SUSTAINABLE SEATTLE, INDICATORS OF SUSTAINABLE COMMUNITY 1998 (2004), *available at* http://www.sustainableseattle.org/pubs/1998IndicatorsRpt.pdf.

170. *See id.*

171. SWAIN, *supra* note 165, at 4.

172. *Id.* at 5.

173. PETREE, *supra* note 4, at 15-16.

174. Wassmer & Boarnet, *supra* note 32.

rates North American metropolitan areas based on nine factors: cost of living, transportation (commute time), jobs (growth rate, number of new and high-paying jobs), education (dollar support for public schools, library patronage rate, number enrolled in college), crime, climate, arts (number of art museums, ballet, touring artists, opera, professional theater and symphony performances, and attendance at such events), health care and recreation.[175] The conclusion: "measurable benefits accrue to a region when it grows."[176] These are, to some extent, alternative indicators to the merely economic indicators. But the *Places Rated* approach uses arbitrary formulas to compare quality-of-life attributes of particular locations as if the attributes of a good life were a location that could be purchased. Critics argue that the nine factors prominently featured in this approach derive from unreliable secondary sources, are very subjective (for example, what about air pollution?), and are each given equal weight in the calculation.[177]

Clifford W. Cobb even-handedly traces the history and use of indicators as relates to quality-of-life arguments and observes:

> Partisans in debate over policies use indicators as evidence to demonstrate the validity of their case. Since there is no neutral or value-free standpoint to determine which statistics are relevant, the numbers do not speak for themselves. If they did, they might resolve conflicts; but in fact, they simply reinforce existing perspectives. Groups are predisposed by their ideologies to look at only one type of data and to discount the evidence from other groups.[178]

Furthermore, as Ed Diener and Eunkook Suh point out, "social indicators are fallible. To take one example, it is known that rape incidents are greatly underreported to the police, and therefore rape statistics are suspect."[179] Also, even if objective measurement is possible, interpreting the data involves many considerations.[180] Apartments may be left out of housing cost figures, and such costs

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175. *Id.* at 12.

176. *Id.* at 16.

177. Steven C. Deller, *Community Ratings: An Abuse of Secondary Data?*, 230 U. WIS. COMMUNITY ECON. NEWSL. (Univ. Wis., Madison, Wis.), Dec. 1995, at 1, *available at* http://www.aae.wisc.edu/pubs/cenews/docs/ce230.txt.

178. *See, e.g.,* CLIFFORD W. COBB, REDEFINING PROGRESS, MEASUREMENT TOOLS AND THE QUALITY OF LIFE 24 (2000), *available at* http://www.rprogress.org/publications/2000/measure_qol.pdf.

179. Diener & Suh, *supra* note 152, at 195.

180. *Id.*

are based on sales reports, not on how much it costs a person who has lived in the same house for thirty years and who has no mortgage.[181] What qualifies as murder for crime-reporting statistics varies from jurisdiction to jurisdiction, and a decrease in infant mortality might be spectacular, but brought about by enormous expenses that save deformed or retarded infants.[182] Is a mild climate (a fairly constant seventy degrees) good if a person likes distinct seasons?[183] Is opera attendance *better* than hunting?[184] Does more police per capita mean greater security or does it reflect the necessity to combat serious crime?[185]

The *Places Rated* analysis concludes that "measurable benefits accrue" from growth,[186] but other researchers (perhaps those with fewer vested interests in the idea) disagree. Stuart Gabriel, et al. at the University of Southern California accessed quality-of-life measurements over time (1981-1990) using wages and housing costs, non-housing cost-of-living variables, income, sales, property tax rates, government expenditures in education, welfare, and highways, commute time, school quality, public safety, and amenities such as weather, recreational opportunities, and environmental quality (proxied by the number of hazardous waste sites and air pollution).[187] They found

> substantial deterioration in quality-of-life rankings in some states that experienced rapid population growth during the decade. Reduced spending on infrastructure, increased traffic congestion, and air pollution account for the bulk of the deterioration in quality-of life in these states. As would be expected, improvement in those same factors is shown to result in marked ascension in quality-of-life ranks among other states.[188]

Increased estimated quality-of-life rankings come from, among other things, "improved air quality, increased highway spending, and reduced tax burdens and commute times."[189] It seems a nice

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181. *See id.*
182. *See id.* at 196.
183. *See id.*
184. *See id.* at 197.
185. *Id.*
186. Wassmer & Boarnet, *supra* note 32, at 16.
187. Stuart A. Gabriel, Joe P. Mattey, & William L. Wascher, Compensating Differentials and Evolution in the Quality-of-Life Among U.S. States (2001), http://www.usc.edu/schools/sppd/lusk/research/pdf/wp_2001-1009.pdf.
188. *Id.*
189. *Id.* at 21.

trick to get improved air quality, increased highway spending, and reduced tax burdens all at once. Of course, some people benefit from the need to address housing-site acquisition, infrastructure deterioration, congestion and air pollution. Michael Kinsley addresses this point:

> As with any inflationary economy, rapid expansion results in a few winners and many losers. Many real estate professionals, big builders, heavy-equipment owners, retail property owners, and large landowners do very well; most others are caught in a spiral of inflation. But expansion is seductive. The winners are very good at convincing the losers that they just need more expansion to be winners, and reassuring them that new taxes from expansion will pay for the solutions to expansion's problems.
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> . . .
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> But almost invariably, the problems only worsen while taxes increase to pay for the solutions (more schools, police, fire protection, roads, human services, sewers, etc.). New revenues seldom cover the true cost of expansion . . . . Since the excess costs are spread among all taxpayers, existing taxpayers unwittingly subsidize the expansion—in effect, the losers subsidize the winners.[190]

In any event, it is difficult to accept the assertion that "for many, if not most, citizens, very significant quality of life benefits . . . [accrue] to those living in . . . rapidly growing regions"[191] for one very good reason: most citizens are *not* in favor of population growth.[192] They are not in favor of it nationally; they are not in favor of it regionally; they are not in favor of it locally.[193] At some level, most citizens apparently sense that growth will not enhance their quality of life, but undermine it. This inchoate sense, reflected in opinion polls, may tell us something that hard numbers do not. Indeed, "it seems unlikely that human happiness can be understood without, in part, listening to what human beings

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190. MICHAEL J. KINSLEY, ROCKY MOUNTAIN INSTITUTE, ECONOMIC RENEWAL GUIDE: A COLLABORATIVE PROCESS FOR SUSTAINABLE DEVELOPMENT 5 (1997).

191. PETREE, *supra* note 4, at 15.

192. Daniel M. Warner, Commentary, *"Post-Growthism": From Smart Growth to Sustainable Development,* 8 ENVTL. PRAC. 169, 170-71 (2006) (citing surveys and polls showing significant percentages of respondents nationally, state-wide, and locally are *not* in favor of population increase).

193. *See id.*

say."[194]

3. Subjective Well-Being

Alternative indicators are problematic because choosing which factors to enumerate and how to evaluate the numbers is wholly subjective. Undoubtedly, tracking alternative indicators is useful; but, success in achieving favorable results using these indicators does not necessarily mean people are happier. It would be handy if researchers could simply ask people whether they are happy and come away with some kind of useful date or reporting. However, the question "Are you happy?" seems hopelessly subjective and therefore not useful.

And yet there is a very significant and rapidly growing body of literature on this very point. Happiness is important. It has, of course, been an object of attention for thousands of years. André van Hoorn, of the Radboud University Nijmegen Center for Economics in Nijmegen, Holland wrote:

> [I]t should not come as a surprise that philosophers and many others debating the concept have long yearned for a way to measure it. The breakthrough came in the 1950s. Psychologists—until then mainly interested in negative emotional states such as depression and anxiety—became interested in positive emotions and feelings of well-being. Within the discipline a consensus grew that self-reports on how well life is going, can convey important information on underlying emotional states, and so the field pushed ahead with measuring what is best referred to as subjective well-being (commonly abbreviated as SWB).[195]

Daniel Kahneman and Alan B. Krueger note that "[f]rom 2001 to 2005, more than 100 papers were written analyzing data on self-reported life satisfaction or happiness, according to a tabulation of *EconLit*, up from just four in 1991—1995."[196]

Basically, SWB research, as relevant here, is conducted by ask-

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194. David G. Blanchflower & Andrew J, Oswald, *Well-Being Over Time in Britain and the USA* 1(Nat'l Bureau of Econ. Research, Working Paper No. 7487, 2000).

195. ANDRÉ VAN HOORN, NIJMEGEN CTR. FOR ECON., A SHORT INTRODUCTION TO SUBJECTIVE WELL-BEING: ITS MEASUREMENT, CORRELATES AND POLICY USES (2007), *available at* http://www.oecd.org/dataoecd/16/39/38331839.pdf.

196. Daniel Kahneman & Alan B. Krueger, *Developments in the Measurement of Subjective Well-Being,* 20 J. ECON. PERSPECTIVES 3 (2006).

ing people the following question: Over all, would you say that you are very happy, pretty happy, or not very happy? The science of SWB is now such that researchers can control for variables. For example, it is known that married people have more SWB than single people do, healthy people more than sick people, and people in peaceful places more than those in violent places. Now we begin to approach the matter of interest here—people in places with low air pollution have more SWB than do people living in places with high air pollution, and people in places with quietude and little traffic congestion have more than people in places with noise and a lot of traffic congestion.[197] SWB "measures are consistent, valid, and reliable. . . . [H]uman happiness is a real phenomenon that we can measure."[198]

The growing research on SWB is in agreement on a point of particular interest to the question of whether growth is good. Growth—economic growth—makes people happy for a while, but after the basic needs of food, clothing, and shelter are satisfied, increased income contributes very little to happiness.[199] That is, the rise in happiness that occurs because of a rise in income is so small "that it seems extra income is not contributing dramatically to the quality of people's lives."[200] This is consistently reported in the literature: once a person has reached the prosperity level of the lower-middle class in the U.S., additional income does not increase happiness.[201] When incomes rise for everybody, measures of well-being do not change much.[202]

> Consider the example of Japan, which was a very poor country in 1960. Since then, its per-capita income has risen several-fold, and is now among the highest in the industrialized world. . . . Yet the average happiness level reported by the Japanese is no higher now than in 1960. They have many more washing machines, cars, cameras and other things than they used to, but they haven't registered significant gains on the happiness scale.[203]

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197. ROBERT H. FRANK, CORNELL UNIVERSITY, DOES ABSOLUTE INCOME MATTER? (2003) *available at* http://www.law.berkeley.edu/centers/bclbe/Courses/216.4lepsych.papers/Frank.Rober.Happiness%20Surveyed.03.htm.

198. *Id.*

199. Andrew J. Oswald, *Happiness and Economic Performance*, 107 ECON. J. 1815, 1817-18 (1997) *available at* http://www2.warwick.ac.uk/fac/soc/economics/staff/faculty/oswald/happecperf.pdf.

200. *Id.* at 1818.

201. *See infra* notes 203-11 and accompanying text.

202. FRANK, *supra* note 197.

203. *Id.*

Ed Diener, one of the foremost researchers in this field, writes that "the economic growth and cultural homogeneity of a society do not correlate with average levels of SWB,"[204] and Charles Kenny puts it this way: "there is plentiful evidence that, at least in the now richer countries, there is no relationship between income growth and growth in reported happiness."[205] Robert H. Frank, writes in *The Economic Journal*: "Does consuming more goods make people happier? For a broad spectrum of goods, available evidences suggests that beyond some point the answer is essentially no."[206] The reason that income growth does not cause well-being to rise after the basic necessities are secured, either for higher or lower income persons, is "because it generates equivalent growth in material aspirations, and the negative effect of the latter on subjective well-being undercuts the positive effect of the former."[207] Clark and Oswald failed to find "any statistically significant effect from income" in Britain, but did find that joblessness causes a sharp decline in happiness.[208]

In the United States during the period from 1952 to 1989, per capita income approximately doubled but "happiness actually dropped over that time by about 0.2 points on a three-point scale."[209] More broadly, "[h]appiness is significantly and negatively related to income in three countries, while only positively related in one. . . . There was no relationship between happiness and past income growth."[210]

This assertion that economic growth (after the lower-middle class level) is unrelated to human happiness is a concept not embraced by traditional neo-classical economists, or by their acolytes the "pro-growthers" who favor land uses that transform the natural landscape into a man-made one. In economic terms, the marginal utility of production, consumption, and wealth, after basic needs are satisfied, is small or negligible.

As John Kenneth Galbraith asserts, this axiom, if accepted as true, would necessarily diminish the importance of production and with it then the entire edifice of conventional wisdom that insists

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204. Ed Diener, et al., *Recent Findings on Subjective Well-Being*, 24 INDIAN J. CLINICAL PSYCHOL. 25, 30 (1997).

205. Charles Kenny, *Does Growth Cause Happiness, or Does Happiness Cause Growth*, 52 KYKLOS 3, 14 (1999).

206. Robert H. Frank, *The Frame of Reference as a Public Good*, 107 ECON. J. 1832, 1832 (1997).

207. Richard A. Easterlin, *Income and Happiness: Toward a United Theory*, 111 ECON. J. 465, 481 (2001).

208. Oswald, *supra* note 199, at 1821.

209. Kenny, *supra* note 205, at 15.

210. *Id.*

on the primacy of production and consumption.[211] Important business people would find their life works (the production of more and more electronic devices, or paper, or automobiles, or the transformation of real estate from rural to urban uses) portrayed as not very important, or even bad, because it does not make people happy. Growth may indeed accommodate an increased population, but the population growth of the United States, at least, must be seen as a social policy. The basic response to the contention, Galbraith says, was that "[o]bvious but inconvenient evidence was rejected on the grounds that it could not be scientifically assimilated."[212] Economics was divorced "from any judgment on the goods with which it was concerned. Any notion of necessary versus unnecessary or important as against unimportant goods was rigorously excluded from the subject."[213] Growth is good because it generates money and that is good because people are better off with *more*.

But, that appears to be false. And, the reason we are importuned to believe that it is true is because "[t]he people who participate with their energies, and particularly their fortunes, in local affairs are the sort of persons who—at least in vast disproportion to their representation in the population—have the most to gain or lose in land-use decisions."[214] These are the local business people, property owners, bankers, investors in local financial institutions, lawyers, and realtors who see their future tied to the growth of the "metropolis" as a whole and, certainly, the metropolitan newspaper which "has no axe to grind, except the one axe which holds the community elite together: growth."[215] This is, of course, because advertising revenue is tied to circulation and the chain newspaper's absentee-corporate owners are, generally, not the local citizens upon whom the costs of growth, economic and otherwise, weigh most heavily.[216] Editors and publishers wheel in and out of town, their climb up the corporate ladder significantly tied to corporate profits.[217] Thus, the drums for growth are beaten by the Chambers of Commerce, the Economic Development Councils, and all the panoply of boosters for business recruitment and better roads, all of which is duly reported by the newspaper as good.[218]

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211. JOHN KENNETH GALBRAITH, THE AFFLUENT SOCIETY, 119-120 (40th Anniversary ed., Houghton Mifflin 1998).

212. *Id.* at 119.

213. *Id.*

214. Molotch, *supra* note 29, at 314.

215. *Id.* at 315.

216. *Id.*

217. *Id.* at 315-16.

218. *Id.* at 314-15.

IV. CONCLUSION: POLICY IMPLICATIONS FOR LAND USE AND ENVIRONMENTAL LAW

Erik H. Erikson, one of the leading figures in the field of psychoanalysis and human development, popularized the idea of identity development. He was concerned with how people come to function appropriately as individuals in society, but, unlike Freud, he was less interested in the psychosexual but more in the psychosocial.[219] He asked about positive psychology, about what made people happy, what made them develop into positive, functioning citizens, constructing for themselves healthy social realities and cultures.[220] Essentially, Erikson believed that the development of a healthy identity involved fostering in people *competency, commitment,* and *community*.[221] Erikson wrote that a properly ordered society provides its members with a sense of being centered, of having a place in the community and a part to play there. "Where such a sense of awareness, of centrality and mutuality is denied to man at any stage, a sense of deadness and depression is apt to ensue . . . ."[222]

Erikson held that the most fundamental requirement for happiness, for the development of competency, community, and commitment, is "a sense of basic trust."[223] This trust comes, as he put it, from being properly centered, that is, from being able to "rely on the sameness and continuity of the outer providers [parents—particularly the mother—neighbors, community]"[224] Erikson suggests we need a place upon which we may rely for a nurturing, sheltering sameness and continuity. That place is home; it provides "a sense of 'hallowed presence,' the need for which remains basic in man." [225] The traditional movers and shakers in most communities are not interested in promoting that kind of trust be-

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219. Erikson was interested in "how societies can nurture developmentally secure and socially productive forms of identity and avoid the resort to extremism." Kenneth Hoover, *Introduction: The Future of Identity*, *in* THE FUTURE OF IDENTITY: CENTENNIAL REFLECTIONS ON THE LEGACY OF ERIK ERIKSON 6 (Kenneth Hoover, ed. 2004).

220. Erikson was interested in, to quote James Marcia: "Trust, Autonomy, Initiative, Industry, Identity, Intimacy, Generativity, and Integrity . . . qualities that would be recognized by all peoples at all times as desirable and possible. Their development depends primarily upon a certain quality of interrelationships between parents and children, teachers and students, romantic partners, and social institutions and individuals." James Marcia, *Why Erikson?*, *in* THE FUTURE OF IDENTITY: CENTENNIAL REFLECTIONS ON THE LEGACY OF ERIK ERIKSON 54 (Kenneth Hoover, ed. 2004).

221. Hoover, *supra* note 220, at 4.

222. ERIK H. ERIKSON, *Thoughts on the City for Human Development*, *in* A WAY OF LOOKING AT THINGS: SELECTED PAPERS FROM 1930 TO 1980 522, 525 (Stephen Schlein ed., 1987).

223. ERIK H. ERIKSON, IDENTITY: YOUTH AND CRISIS 96 (1968).

224. *Id.* at 102.

225. *Id.* at 105.

cause they believe that more wealth will make citizens happy, and wealth comes from growth, and from growth comes material transformation.

An economic system predicated on endless growth is *antithetical* to a system predicated on nurturing, sheltering sameness, and continuity. Growth, as such, will not make people happy. It may be possible, *despite growth*, to create a good society in this sense, but the constant dislocations caused by growth and business activity make it more difficult, not easier.

> Cosmopolitan thinkers who believe that the real threat to the planet comes from the failure on part of ordinary people to break loose from their provincial roots and to embrace "the stranger" and the "world at large" have got it backwards. . . . The real threat does not come from strong provincial commitments: it comes from their absence. [226]

> The point here is not to criticize the free market:
>
> The problem is not with the market as a device, but rather with the substitution of market devices for other social and political processes that are essential to human development. The practices and customs of civil society that give relations of commitment a higher priority than individual material advancement, for example, are characteristic of a *civil*-ized society.[227]

The literature on SWB, however, does emphasize one significant economic point: Unemployment causes unhappiness; it promotes *incompetency* in the Eriksonian sense.[228] Past research shows that individual unemployment has a large negative effect on subjective well-being.[229] "Unemployment appears to be the primary economic source of unhappiness. If so, *economic growth should not be a government's primary concern*."[230] This becomes all the more true when it is recognized that growth almost always presses upon and

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226. WILLIAM LEACH, COUNTRY OF EXILES: THE DESTRUCTION OF PLACE IN AMERICAN LIFE 180 (1999).

227. Kenneth Hoover, *What Should Democracies Do About Identity?*, *in* THE FUTURE OF IDENTITY: CENTENNIAL REFLECTIONS ON THE LEGACY OF ERIK ERIKSON 106 (Hoover ed., 2004).

228. *See* Hoover, *supra* note 220, at 5-6.

229. Andrew E. Clark & Andrew J. Oswald, *Unhappiness and Unemployment*, 104 ECON. J. 648, 648-49 (1994).

230. Oswald, *supra* note 199, at 1828 (emphasis added).

adversely affects the environment.

The policy implications here are, in the grossest sense, obvious. Governments concerned about their citizen's well-being should not focus efforts on growth, but rather on promoting in their citizens a sense of being centered. Ruut Veenhoven observes that "happiness is a realistic goal for public policy. Happiness of a *great number* is apparently possible, since most people rate their happiness above neutral in most nations. *Greater* happiness is also possible in most countries of the world. What is possible in countries like Switzerland should also be possible elsewhere."[231] And again, uniformly the research shows, worldwide, "when the $20,000 point [of annual income] is passed, the regression line is almost flat."[232] More money does not make people happier.

What we should seek is a *quality* of life that promotes a sense of centeredness; we should not seek a life of mere quantity of "stuff." While it is beyond the scope of this Article to detail the necessary "relocalization," Michael Kinsley identifies four principles of economic renewal that tend toward sustainable development not dependent upon mere growth and that tend to promote one's own community as a real home place.[233] First, favor and promote local production and consumption as reasonable.[234] Second, support existing businesses.[235] Third, encourage new local enterprise with community start-up assistance if needed.[236] Fourth, recruit compatible new business.[237] It is self-contradictory for a jurisdiction to, on the one hand, appeal to its citizens for a tax increase to pay for new sewers and new roads and new police protection, and on the other hand, beat the drums for an increase in population, unless the increase in population will improve the quality of life for most citizens. [238]

Edwin Stennett suggests two somewhat similar approaches to constraining the Growth Machine, and he adds a political item.[239] He suggests that to control growth communities should: (1) restrain new business recruitment, (2) make development pay its own way, and (3) "[e]lect public officials whose campaign funding is

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231. Ruut Veenhoven, *Measures of Gross National Happiness*, 23 (Presentation at OECD conference on measurability and policy relevance of happiness, April 2-3, 2007) *available at* http://www.oecd.org/dataoecd/22/23/38303257.pdf.

232. *Id.*, at 24.

233. KINSLEY, *supra* note 190, at 18-25.

234. *Id.* at 18-20.

235. *Id.* at 20-22.

236. *Id.* at 22-24.

237. *Id.* at 24-25.

238. EDWIN STENNETT, IN GROWTH WE TRUST: SPRAWL, SMART GROWTH, AND RAPID POPULATION GROWTH 76-77 (2002).

239. *Id.* at 76-82.

not dominated by Growth Machine money."[240]

Let us stop arguing about whether growth and all the concomitant transformations of the natural landscape is good economically. Let us remove that arrow from the growth-advocates quiver. It cannot be demonstrated by economic measures whether growth makes people, in general, wealthier or less wealthy, taxed more or taxed less. There are too many variables; it depends.[241] The use of social indicators to measure a "good" society likewise is fraught with difficulties; again, it depends.[242] It depends on which indicators are chosen. The choice is very subjective, and it is probably possible to prove just about anything by which indicators are chosen.

But it is not disputed—for the most part, by any credible analysis—that after a while growth (in the sense of more economic activity and money-making) does not make people happier. We in the developed world are long past the point where additional absolute income will make us happier. What does make people happy is not the product of the tiresome, importuning boosterism that has laid waste our cities with strip malls and infuriating traffic congestion. What makes people happy is a decent, stable home-place with good personal community relations. That is what public-policy advocates should promote, not growth.

When the economic system, full of righteous triumph, insists that "growth is good," the land—the ecosphere—suffers. In response, contentious environmental laws are adopted to ameliorate the suffering. Until we control our population, perhaps we will need to convert some land from less to more intense use. Let us at least stop pretending that it is a good thing, that it provides indisputable benefits. It does not, and assertions to the contrary are a species of "criminal optimism."[243] If public policy is to be directed at serving the welfare of citizens, and we hope it is, land use policies that encourage or tolerate the quantitative expansion of the built environment—growth—are misplaced.

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240. *Id.*

241. GOVERNOR'S TASK FORCE, *supra* note 54, app. E, at E-18.

242. *Id.*

243. WILHELM ROPKE, A HUMANE ECONOMY: THE SOCIAL FRAMEWORK OF THE FREE MARKET 42 (Elizabeth Henderson Trans., Henry Regnery Co. 1960). Ropke was one of the architects of the post-WWII German "economic miracle." Of the assertion that population and economic enlargement are good things, he wrote "There is an important and interesting task here for psychologists, who might try to analyze and explain this [delirious idea], with its criminal optimism, . . . its cult of quantity, its taboos, and its strange mixture of statistics and lullabies." *Id.*

IN SEARCH OF ROBIN HOOD: SUGGESTED LEGISLATIVE RESPONSES TO *KELO*

MARK SEIDENFELD*

I. INTRODUCTION

Few cases involving property law have engendered the level of concern that the Supreme Court's recent *Kelo* decision spawned.[1] Despite the language of the Fifth Amendment, "nor shall private property be taken for public use, without just compensation[,]"[2]

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* Patricia A. Dore Professor of Administrative Law, Florida State University College of Law. Special thanks to my colleagues Rob Atkinson, J.B. Ruhl, Jonah Gelbach, Jon Klick and Manuel Utset for helping me think through some of my ideas. Thanks also to the participants in the conference on "Takings: The Uses and Abuses of Eminent Domain and Land Use Regulation" for the DeVoe Moore Center and the FSU College of Law's Program on Law, Economics and Business, and in particular to Bruce Benson for organizing the conference, and Ilya Somin, Perry Shapiro and Rick Stroup for comments and discussions at that conference.

1. Kelo v. City of New London, 545 U.S. 469 (2005).
2. U.S. CONST. amend. V.

Kelo held that the government can use its eminent domain power to take property from private owners in order to transfer that property to other private owners.[3] For the sake of brevity, I will refer to the ability of government to use eminent domain to transfer property between private owners as the "*Kelo* power." Local governments'[4] use of the *Kelo* power creates a perception that the government today is acting much as the reviled Sheriff of Nottingham in the childhood story of Robin Hood, taking property from the poor to line the coffers of those who curry favor with the authorities. This perception is reinforced because the ostensible reason for local governments' exercise of their *Kelo* power is to increase their tax bases by revitalizing run down neighborhoods that provide homes mainly to the less well-to-do. The perception is further solidified because often the recipient of the land is a large impersonal entity, usually a corporation, which is frequently given tax breaks along with the property. In return, the corporation promises that it will devote the land to uses that will help create jobs and attract other businesses and wealthier residents, whose property tax payments will shore up the failing tax base of the local government entity.

It is therefore not surprising that *Kelo* has generated a host of citizen initiatives and state legislation restricting the use of the eminent domain power to transfer property from one private entity to another.[5] Such efforts, of course, are entirely consistent with the rationale of *Kelo* itself. In *Kelo*, the Supreme Court addressed the question whether, by including the phrase "for public use" in the Fifth Amendment, the Constitution prohibited the use of emi-

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3. *Kelo*, 545 U.S. at 477. *Kelo* expanded the boundaries of public use to include economic development and increasing the local government tax base by broadly interpreting "public purpose" and giving great deference to local government determinations of public needs. *Id.* at 489-90. The Supreme Court had previously approved the use of eminent domain to transfer property from one private entity to another when existing ownership imposed direct costs on the local community, such as where one landowner exercised monopoly power over all land in the area or the land that was taken was a slum. *See, e.g.*, Haw. Hous. Auth. v. Midkiff, 467 U.S. 229 (1984); Berman v. Parker, 348 U.S. 26 (1954).

4. Any governmental entity with eminent domain power can exercise the *Kelo* power. I use the term "local government" to refer to the governmental entity actually exercising the *Kelo* power, in order to distinguish this entity from other bodies of government, such as state legislatures, that have the authority to limit the use of eminent domain by lower bodies of government, such as municipalities and counties. This usage comports with the reality that it is usually a local government that has exercised the power, in large part because it generally will have an easier time making a plausible argument that its use is good for its citizens than will governments that represent citizens spread out across a large geographical area.

5. *See* DANA BERLINER, INSTITUTE FOR JUSTICE, PUBLIC POWER, PRIVATE GAIN: A FIVE-YEAR, STATE-BY-STATE REPORT EXAMINING THE ABUSE OF EMINENT DOMAIN (2003), *available at* http://www.castlecoalition.org/pdf/report/ED_report.pdf (listing new state legislation); *see also* The Castle Coalition, http://www.castlecoalition.org (last visited Feb. 16, 2008) (reporting grassroots movement of eminent domain abuse).

nent domain power to transfer property from one private entity to another.[6] The Court essentially reasoned that the term "public use" was not meant to restrict the use of eminent domain to situations where the property is publicly owned, or even put directly to a public use.[7] Implicit in the *Kelo* holding is the principle that it is up to the political processes to prevent local governments from abusing the power of eminent domain to enrich supporters of local officials responsible for the decision to take the property at issue.[8] Thus, when state-level politics limits the power of state and local governments to use takings to transfer private ownership, those limits are not only consistent with, but are actually envisioned by the *Kelo* decision.[9] In essence, the Court declined the invitation to play the role of Robin Hood, instead stating that it was up to the state legislatures to do so.

This article provides some guidelines for how state legislatures might best play that role. It suggests that a legislative response by state governments is warranted to prevent abuse of the *Kelo* power.[10] It does so by using economic analysis to address the constitutional and political issues raised by government use of the *Kelo* power. The article focuses directly on concerns that the *Kelo* power creates an opportunity for local government to act like the Sheriff of Nottingham. However, it concludes that concerns should not focus per se on the government-forced transfer of property from one private entity to another, but rather with the level of compensation that the courts have demanded for takings, coupled with a lack of procedures, to ensure that the use of the *Kelo* power provides public benefits, rather than a simple wealth transfer from one private entity to another.

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6. *Kelo*, 545 U.S. at 472.

7. *Id.* at 479-80. In *Kelo*, the Court used condemnation of land for a railroad with common-carrier duties as an illustration of when "a State may transfer property from one private party to another if future 'use by the public' is the purpose of the taking." *Id.* at 477.

8. *See id.* at 478.

9. *Id.* at 489 ("We emphasize that nothing in our opinion precludes any State from placing further restrictions on its exercise of the takings power.").

10. This article thus assumes that there is interest at least in some states for reforming *Kelo* power use. Ilya Somin uses classic public choice theory to contend that such interest by state legislators is mostly illusory. He has surveyed state legislative responses to *Kelo* and concluded that most will be ineffective. *See* Ilya Somin, *The Limits of Backlash: Assessing the Political Response to* Kelo 14-15 (Geo. Mason L. & Econ. Research Paper Series, Working Paper No. 07-14, 2007), *available at* http://www.law.gmu.edu/assets/files/publications/working_papers/07-14.pdf. His conclusion, however, is belied to some extent by his own admission that Pennsylvania, Michigan, Kansas (and I would add Florida) are states in which the *Kelo* power had been exercised with some regularity and that did adopt meaningful reform. *Id.* at 12, 14. His categorization of legislative reactions also suffers from failure to take into account that the courts are well aware of the public outcry from *Kelo* and are not likely to simply continue to approve use of the *Kelo* power just because the legislation leaves them that alternative.

In Part II of this article, I use economics to review the potential benefits that can flow from the use of eminent domain to transfer property from one private entity to another. In Part III, I describe potential *Kelo* power abuses. In Part IV, I discuss mechanisms that other scholars have suggested obviate the need for the *Kelo* power, and explain why a need for that power still remains. In Part V, I propose two changes in law — one regarding compensation to owners whose property is condemned using the *Kelo* power and the other regarding procedures that local governments should have to follow to use the *Kelo* power. This section also explains how these legal changes would minimize the potential for abuse without forfeiting the *Kelo* power altogether. In proposing these changes, I suggest that commentators to date have ignored procedural means that can harness the expertise of government officials, as well as incentives of potential private recipients of the property, to solve problems that these commentators have concluded are insurmountable.

II. POTENTIAL BENEFITS FROM USE OF *KELO* POWER

A. Efficiency Gains from Transferring Property to the Highest Valuing User

Generally we trust private mechanisms—in particular voluntary agreements for purchase and sale of land—to ensure that land goes to the highest valuing user.[11] When there are transaction costs that prevent transfer to the highest valuing user using such mechanisms,[12] we want government to be able to induce transfer without necessarily having to own the property itself.

Use of the *Kelo* power is not theoretically distinguishable from other uses of eminent domain with respect to efficiency gains. If transfer of the property from the original owners is justified when the government takes title to the condemned property, it can be justified when the government retransfers that property to a private entity. According to the language of the Fifth Amendment, critics of the *Kelo* majority focus on "public use" as the key term

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11. *See* Gary D. Libecap & Nat'l Bureau of Econ. Research, *Contracting for Property Rights* 15 (U. of Ariz. Dep't of Econ. Working Paper No. 00-07, 2000), *available at* http://economics.eller.arizona.edu/downloads/working_papers/anderson3s.pdf ("With secure rights to land and the existence of land markets, price signals will direct land to those who will place it in its highest-valued use at any point in time.").

12. R. H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 15 (1960) (explaining that in the absence of transaction costs, parties will transfer property rights to maximize wealth, but that transaction costs can interfere with such transfers).

that they claim invalidates the *Kelo* holding.[13] But use is not automatically public when run by the state.[14]

For example, if the state condemns land for a hospital that it owns and runs, the hospital only serves a select subset of the general public (those who either cannot pay for alternative hospital care or prefer to use the public hospital because of convenience, the hospital's resources, or any other reason). If the state runs the hospital, the use of the property is per se a public use. But if a private entity runs the hospital is the use any less public? There is absolutely no difference in use.

Moreover, as a matter of policy, do we want the state running hospitals simply because that is the only way the state could exercise its eminent domain power to make construction of the hospital feasible? Economists often critique government provision of services that could be privately provided because the government operates outside the competitive marketplace that induces private entities to meet consumer demand at the lowest cost.[15] In addition, government does not have any particular expertise in running hospitals or, for that matter, most of the other projects that

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13. *See* Kelo v. City of New London, Conn., 545 U.S. 469, 494-523 (dissenting opinions); *cf.* Charles E. Cohen, *Eminent Domain After* Kelo v. City of New London*: An Argument for Banning Economic Development Takings*, 29 HARV. J.L. & PUB. POL'Y 491, 495-500 (2006) (agreeing with the dissent in *Kelo* that the *Kelo* holding effectively removed the phrase "for public use" from the Takings Clause, but recognizing that the holding was in line with precedent, thus proposing a ban on takings for development by way of state legislation or constitutional amendment).

14. For example, local governments often provide essentially private goods that generate external benefits, such as primary education, public transportation and garbage collection. *See* Amnon Lehavi, *Property Rights and Local Public Goods: Toward a Better Future for Urban Communities*, 36 URB. L. 1, 11-12 (2004) (noting that parks, roads and schools provided by local governments do not exhibit the classical public goods attributes of nonrivalrous use and inability to exclude individuals from enjoying these services); *see also* WILLIAM B. NEENAN, URBAN PUBLIC ECONOMICS 171-75 (Curt Peoples, Jeanne Heise & Amy Ullrich, eds., 1981) (noting that services provided by local governments have a mixed public-private nature). Although such services are used by members of the public, they primarily benefit the individuals who use them and are not public goods in the classic economic sense because it is possible to exclude individuals from their use and their consumption is rivalrous. *See, e.g.,* Mark Gradstein, *Rent Seeking and the Provision of Public Goods*, 103 ECON. J. 1236, n.1 (1993) ("[P]ublic goods . . . are characterised by the absence of rivalry in consumption."); Paul A. Samuelson, *The Pure Theory of Public Expenditure*, 36 REV. ECON. & STAT. 387, 387 (1954) ("[E]ach individual's consumption of such a good leads to no subtraction from any other individual's consumption of that good."). Moreover, many individuals purchase such services from private providers, and the use of the services in those instances is no different from when the local government provides the service.

15. *See, e.g.*, MATTHEW MITCHELL, RIO GRANDE FOUND., THE PROS OF PRIVATELY-HOUSED CONS: NEW EVIDENCE ON THE COST SAVINGS OF PRIVATE PRISONS (2003), http://www.correctionscorp.com/overview/prison_study_march18.pdf (comparing efficiency of private-run versus government-run prisons). *See generally* Timothy K. Barnekov & Jeffrey A. Raffel, *Public Management of Privatization*, 14 PUB. PRODUCTIVITY & MGMT. REV. 135 (1990) (sorting through the debates for and against privatization of services and offering suggestions on when privatization may be a viable option).

have been promoted by use of the *Kelo* power.

Government may be best at envisioning highest value uses and coordinating transfers, but it is unlikely to be best at actually managing the property use once the transfer is accomplished.[16] Perversely, without the *Kelo* power, government may be forced to actually own and operate the enterprise that it finds maximizes public wealth, even though government is unlikely to be the most efficient owner and operator. The government can perhaps avoid this conundrum by contracting the operation of the facility to a private entity while continuing to own it, but government is not likely even to be best at exercising ownership,[17] and even if it is, the need to separate ownership from management by government will create agency costs.

B. Overcoming Holdout Problems

Problems of effecting transfer to the highest valuing user are especially apt to arise when there are synergistic benefits from coordinated uses of contiguous property. The increase in wealth may come about because the value of the use of the whole tract of land may exceed the value of the sum of the individual contiguous parcels in current owners' hands. Wealth can be increased only if the highest valuing entity can buy up the entire tract. That entity will face holdout problems that can raise the cost of purchase and perversely even prevent the transfer of the property entirely.[18] In that case, the land value never increases to reflect these synergistic benefits. Eminent domain power counteracts the ability of the holdout to capture an unfair share of wealth increases from trans-

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16. *See* M. Shamsul Haque, *Public Service Under Challenge in the Age of Privatization*, 9 GOVERNANCE: INT'L J. POL'Y & ADMIN. 186 (1996) (discussing idea that critics of the public sector usually claim that private enterprises are more efficient because it is competitive in nature, more capable of ensuring fairness and welfare and more suitable for achieving a proper allocation or distribution of resources).

17. *See* Andrei Shleifer, *State Versus Private Ownership*, 12 J. ECON. PERSP.133, 141, 144 (1998) (asserting that private ownership of facilities that produce goods and services is preferable to government ownership because private owners have incentives to keep costs down while government officials have incentives to supply monopoly rents); *see also* Timothy Besley & Maitreesh Ghatak, *Government Versus Private Ownership of Public Goods*, 116 Q. J. ECON. 1343, 1343-44 (2001) (concluding that government ownership is appropriate only when a project creates primarily public goods and the government values those goods more than any other entity, e.g., more than any nongovernmental organization (NGO)).

18. *See* STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW 124-25 (2004); *see also* Patricia Munch, *An Economic Analysis of Eminent Domain*, 84 J. POL. ECON. 473, 474 (1976) ("Consolidation of many contiguous but separately owned parcels of land under one owner supposedly creates a holdout problem, with each seller having an incentive to hold out to be the last to settle and capture any rent accruing to the assembly."); Jonathan Klick & Francesco Parisi, *The Disunity of Unanimity*, 14 CONST. POL. ECON. 83, 91-92 (2003).

fer of parcels with synergistic uses. This is the classic economic defense of use of eminent domain to allow the government to take land for its own use.[19] The thought is that the business of government by democratically accountable officials should not be thwarted by the prospect of holdouts and private strategic behavior.

In addition to the holdout problem, which creates a barrier to the ability of a single entity to purchase multiple land parcels to realize synergistic benefits, a private entity may face significant regulatory risks that threaten its ability to realize these benefits once it has acquired the property.[20] Today, the development of multiple-use projects necessarily involves local government to make sure that the private entities provide sufficient infrastructure such as roads, schools, parks, and other government-provided goods that the ultimate users of the project will demand. If these are not built, the development will tax the existing infrastructure and some of the project costs will be borne by the current residents and other taxpayers within the local government unit. A private owner can proceed with a project and then negotiate with city planners about the requisite infrastructure it will have to provide. However, this creates uncertainty about the ultimate costs and revenues that will flow from the project. In that situation, the owners' risks will not fully realize the synergistic benefits of aggregation of property and may be dissuaded from investing in the aggregation of the parcels in the first place. In the extreme, local governments may find it expedient simply to deny approval for a controversial development rather than negotiate and face litigation over conditions it imposes.[21]

C. Accounting for External Benefits

There may also be beneficial externalities from use of private

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19. *See* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 40-42 (2d ed. 1977); Richard A. Epstein, *Holdouts, Externalities, and the Single Owner: One More Salute to Ronald Coase*, 36 J.L. & ECON. 553, 557 (1993) (stating generally that the use of eminent domain is to prevent holdouts); A. Mitchell Polinsky & Steven Shavell, *Economic Analysis of Law* 4 (Stanford L. & Econ. Olin, Working Paper No. 316, 2005), *available at* http://ssrn.com/ abstract=859406 ("When . . . the state needs to assemble many contiguous parcels . . . acquisition by purchase might be stymied by hold-out problems, making the power to take socially advantageous.").

20. *See* Mark Fenster, *Takings Formalism and Regulatory Formulas: Exactions and the Consequences of Clarity*, 92 CAL. L. REV. 609, 622-23 (2004) (critiquing the uncertainty inherent in the Supreme Court's imposition of constitutional scrutiny on local government exactions from developers but not the current regime of local government control of development through a flexible bargaining process in which comprehensive land use plans, maps, zoning, subdivision ordinances, and variances are all negotiable).

21. *See id.* at 661-62.

property.[22] Certain uses will increase neighboring property values, create job opportunities, etc. These benefits will never be captured by any owner, but the local government is the most likely entity to represent the interests of neighboring property owners and others in the community who stand to benefit from a new land development project. This is true because those benefits are reflected as increased property value, business revenue, or residents' income, which in turn increase the tax revenue of the local government. [23] These benefits to local government may in turn encourage the government to offer incentives to land owners (such as property tax breaks and direct subsidies) who promise to use land in ways that generate such external benefits. When the external benefits depend on synergies of land use of contiguous parcels that are not currently owned by one entity, a city may need to coordinate the consolidation of property and the resulting uses to maximize the net social wealth.[24] In other words, the government will be able to utilize its land use regulatory power to structure the transfer to maximize wealth, including the external benefits that the private owner otherwise would not be able to realize.

D. An Example of the Potential Benefits of the Kelo *Power*

Consider two contiguous parcels of land, owned by O1 and O2 respectively. The market value of each parcel is $50,000; the value to O1 of his parcel is $100,000 and the value to O2 of his parcel is $100,000. Suppose that the value of the parcels to any one of a multitude of potential buyers is not great individually, but because of synergies in uses of the parcels, the value is $300,000 if a potential buyer can buy the entire tract of two parcels. Efficiency is best served by having the parties negotiate the sale of each parcel to the prospective buyer. The price would fall between $100,000 and $150,000 per parcel, assuming that the transaction costs of imple-

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22. *See generally* PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, ECONOMICS 32, 751 (15th ed. 1995) (discussing externalities generally).

23. *See* Elizabeth F. Gallagher, *Breaking New Ground: Using Eminent Domain for Economic Development*, 73 FORDHAM L. REV. 1837, 1854 (2005); *see also* Matthew L. Cypher & Fred A. Forgey, *Eminent Domain: An Evaluation Based on Criteria Relating to Equity, Effectiveness, and Efficiency*, 39 URB. AFF. REV. 254, 263 (2003) ("One of the arguments made in favor of using eminent domain for the redevelopment of an area is that unproductive land would be put to its highest and best use, which would ultimately result in an increased property tax base.").

24. "[A] situation could arise in which the *private* benefit of the taking is lower than the actual value of the properties to all of the existing owners, but the *social* benefit of the taking is greater than the actual value to the existing owners." Daniel B. Kelly, *The "Public Use" Requirement in Eminent Domain Law: A Rationale Based on Secret Purchases and Private Influence*, 92 CORNELL L. REV. 1, 42 (2006).

menting the sale and transfer are negligible. However, each of the owners has an incentive to demand $200,000 for his parcel, as that would still allow the transaction to occur, but would give the owner who gets this price to keep all the surplus created by the transfer. If each owner asks for $200,000, though, the buyer will not pay the price, and the efficient transfer does not occur. In a situation like this, the local government can force the transfer by using its *Kelo* power.

Suppose instead that the potential buyer values the entire tract at only $180,000, but that the city gains tax revenues, local businesses increase profits, and the value of neighboring land increases if ownership of the tract is transferred and put to its new use. Suppose further that all three increases in social wealth, added together, total $120,000. Assuming that the potential owners cannot extract this added value from the neighbors, the transfer will not take place voluntarily even though the transfer is efficient. Hence, we would hope that the municipality would obtain the land and transfer it to one of the highest valuing users to secure the increase in social wealth for the community. Again, if the local government runs into a holdout problem, it can use its *Kelo* power.

III. ABUSES OF *KELO* POWER: ROBBING FROM THE POOR TO GIVE TO THE RICH

The *Kelo* power can be seen as use of government power to transfer wealth from one set of individuals (who for the most part have little political influence because they do not generate benefits such as tax revenues for the city), to others who, as potential owners or developers of a large multi-use project, are likely to have more power to influence local officials.[25] Because developers stand to gain substantially from the transfer of property, such developers have an incentive to seek out and even create the opportunities for

25. *See* Nicole Stelle Garnett, *The Public-Use Question as a Takings Problem*, 71 GEO. WASH. L. REV. 934, 977 (2003) ("[T]he available evidence strongly suggests that private parties standing to benefit from an exercise of eminent domain frequently exert political pressure on the condemning government."); *see also* Saul Levmore, *Just Compensation and Just Politics*, 22 CONN. L. REV. 285, 306-11 (1990) (contending that compensation requirements distinguish between interest groups who do not need the protection of judicially-imposed just compensation, and the individual who is involved once in a lifetime when his property is taken, and for whom organizing to participate in the political marketplace would be highly inefficient); Saul Levmore, *Takings, Torts, and Special Interests*, 77 VA. L. REV. 1333, 1358-60 (1991) (arguing that government impositions on private owner's use of property are compensable as takings when the beneficiaries of the imposition are special interest groups capable of capturing the political process, and those who bear the burden are singled out and unable to compete effectively in the political process).

such projects[26] —that is to rent seek.[27] They can then use some portion of the rents they garner to provide political support for incumbent local officials. Reciprocally, because those whose property is taken do not have significant political clout, officials do not bear the costs of the wealth transfer from these individuals to the officials' influential supporters. Hence, there are no incentives to prevent transfer of land from a higher to lower valuing user.

This can be illustrated using the example above. Just compensation under eminent domain law is market value.[28] Hence, if the local government uses its *Kelo* power, it will pay only $100,000 for the tract of land. Suppose the value of the land when aggregated (including synergistic value) to the highest valuing user other than O1 and O2 is $170,000. Then the city has an incentive to condemn the land and sell it for somewhere between $100,000 and $170,000. But such a transfer of land would not be efficient or fair. It would decrease the total value of the land from $200,000 to $170,000.[29] It would also deprive each of the existing owners of $50,000 of the value that they place on the land because they would only receive market value.

Even if condemnation with just compensation does not decrease the wealth of original land owners, it may provide undeserved benefit to the property recipient by allowing the recipient to keep the value created by synergistic benefits.[30] If the benefits result from synergies in land use alone, rather than from particular capabilities of the entity that ends up owning the entire tract of

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26. For example, if a developer

> can get local government officials to decide that the business he is going to establish on the land is in the 'public interest' because it will generate employment in the community and increase the tax base . . . [h]e negotiates with the local officials, who decide to condemn the land and sell it to him . . . well below its market value.

Bruce L. Benson, *The Mythology of Holdout as a Justification for Eminent Domain and Public Provision of Roads*, 10 INDEP. REV. 165, 173 (2005).

27. Rent seeking is the "behavior in institutional settings where individual efforts to maximize value generate social waste rather than social surplus." James M. Buchanan, *Rent Seeking and Profit Seeking*, *in* TOWARD A THEORY OF THE RENT-SEEKING SOCIETY 3, 4 (James M. Buchanan, Robert D. Tollison & Gordon Tullock eds., 1980).

28. "Just compensation includes all elements of value that inhere in the property, but it does not exceed market value fairly determined." Olson v. United States, 292 U.S. 246, 255 (1934).

29. The inefficiency of market value as a measure for just compensation has long been noted. *See* RICHARD A. EPSTEIN, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN 183 (1985); *see also* Robert C. Ellickson, *Alternatives to Zoning: Covenants, Nuisance Rules, and Fines as Land Use Controls*, 40 U. CHI. L. REV. 681, 735-37 (1973).

30. Abraham Bell & Gideon Parchomovsky, *Givings*, 111 YALE L.J. 547, 579 (2001) ("While people can view windfalls that befall another with sanguinity, when the windfall arrives as a result of a strategic and deliberate decision of the government, the reaction may turn to resentment and frustration.").

property, then those benefits result from the government's ability to facilitate the consolidating transfer of property. Therefore the benefits should belong to the government entity that exercises eminent domain. Otherwise, the private recipient receives a windfall from the property transfer.[31]

Those distrustful of government might object, stating that the surplus would be better used if placed in the hands of private entities. However, other mechanisms by which government might raise revenue, such as taxes, are economically distorting and therefore impose a net loss of social value,[32] while this mechanism actually corrects economic distortions that result from strategic behavior of land owners. Hence, even those who do not support increasing government's ability to raise revenue should recognize that the use of the *Kelo* power to collect the value of property aggregation is preferable to other revenue generating mechanisms. They might also argue that allowing the private transferee to keep the surplus would create incentives for private entities to identify areas that are currently devoted to uses other than maximization of the land value. As I explain below, however, it is unlikely that such incentives are necessary because such opportunities will either be easily identified based on public information, or known to local officials who have an incentive to exploit them on behalf of local government.

The *Kelo* power's ability to move land to its highest valued use, even in the presence of externalities, can best be illustrated with a variant on our previous example. Suppose now that the market value of each parcel is $100,000 and that both O1 and O2 put this value on the parcel each owns. Suppose further that, again due to synergistic uses, the value of the entire tract is $300,000. Now the use of *Kelo* power will not decrease the value of the land. In fact, if the local government transfers the tract to an entity that values it at $300,000, the use of the *Kelo* power would not be unfair to O1 or O2, as they will each receive their value for the land and, and the taking leads to an efficient outcome. But, there is still the question of who gets the $100,000 surplus. Since the surplus is created by the ability of the local government to force consolidation of the parcels, the value should belong to the local government (i.e., go to benefit the residents of the entity exercising the eminent domain power). But for agency costs that local residents incur to control local officials, granting the surplus to the local government

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31. *Id.*

32. *See* Martin Feldstein, *The Welfare Cost of Capital Income Taxation*, 86 J. POL. ECON. S29 (1978).

would encourage efficient consolidation. But, because there are such agency costs, *Kelo* does nothing to ensure that that the local government keeps this surplus. In fact, public choice theory would predict that local government officials will transfer it to some private entity that can best deliver votes at the next election[33] or, if the officials responsible for exercise of the *Kelo* power are not elected, to some entity that is likely to provide a benefit to them such as future employment.[34] If we relax the assumption that every entity that can use the tract values it equally, then there is a high probability that local officials will transfer the property (and with it the surplus in value created by consolidation) not to the highest valuing user, but instead to the user who can do the most for the local official (e.g. the quintessential official's brother-in-law).[35]

Of course, if there is an entity that is a unique highest valuing user, then that entity should get the land and should be able to keep the part of the surplus that results from its unique ability to maximize property value. Thus in our running example, suppose that the best use of the land is as a mixed-use development that includes homes of various values, stores for the residents of those homes, and some heavier commercial uses that provide jobs for many of the residents of the new development. Suppose further that there is one developer, $D_{best,}$ who has a reputation for creativity in design of such mixed-use developments and, because of this creativity, can create a development worth $400,000 on the tract. We would want the local government to use its *Kelo* power to transfer the land to D_{best}. But local officials may instead want to transfer the land to a proverbial brother-in-law, or more likely, to some entity that will support and contribute money to their reelection.[36] The land will end up worth $300,000, representing a loss of

33. *See* Herbert Hovenkamp, *Legislation, Well-Being, and Public Choice*, 57 U. CHI. L. REV. 63, 106 (1990) ("Public choice theory suggests that . . . [t]hrough highly effective lobbying, [interest] groups purchase the legislation they want . . . ."); *see also* Garnett, *supra* note 25, at 977 and accompanying quote.

34. Concerns about capture of officials not subject to direct electoral accountability were at the heart of James Landis's critique of the administrative state during the latter part of his career. *See* JAMES M. LANDIS, REPORT ON REGULATORY AGENCIES TO THE PRESIDENT-ELECT (1960), *available at* http://www.sechistorical.org/collection/papers/1960/1960_1221_Landis_report.pdf (warning of "the subtle but pervasive methods pursued by regulated industries to influence regulatory agencies by social favors, promises of later employment in the industry itself, and other similar means.").

35. *See* Shleifer, *supra* note 17, at 141 ("Governments throughout the world have long directed benefits to their political supporters, whether in the form of jobs at above-market wages or outright transfers.").

36. *See* Garnett, *supra* note 25, at 977; *see also* James Geoffrey Durham, *Efficient Just Compensation as a Limit on Eminent Domain*, 69 MINN. L. REV. 1277, 1309-10 n.187 (1985) ("[I]nefficient takings . . . result from the weakness of the political check on the use of eminent domain: the corruption, unfairness, or mistakes of elected officials and the elec-

the $100,000 surplus that would be created if D_{best} got the parcel. Hence, government discretion to give the land away after it is taken often will lead to inefficient land transfers.

Past use of the *Kelo* power to promote redevelopment has highlighted a third abuse of the power, albeit one that stems from local officials failing to protect their own political interests in seeing the project to fruition. In many instances, the putative recipient of the property, who is expected to build a facility that will provide jobs that ultimately will drive demand for the use of the property, and perhaps to build other infrastructure, simply decides not to follow through with the plans. Takings law, which is geared primarily toward the transfer of land to a government entity, provides no mechanism to ensure that these putative recipients make good on their implicit promises once the land is transferred to the private entity. [37] Knowing this, private entities have an incentive to overstate the public benefits that their proposed projects will create, increasing the probability that the local government will transfer land to them, and providing a windfall to these entities without any concomitant obligation to proceed as planned.[38]

IV. THE NEED FOR *KELO* POWER — PROBLEMS WITH ALTERNATIVES TO SOLVING THE HOLDOUT PROBLEM

The fact that the *Kelo* power can be, and maybe is even likely to be abused in itself does not imply that the power is not beneficial in some contexts. Rather, if we use efficiency as our normative criteria for decisions regarding the use of this power, then justification will hinge on the costs of using the power compared to the costs of alternatives that might also alleviate the holdout problem.[39]

A. Secret Purchases of Parcels

One alternative is the creation of fictitious entities to hide both the identity of the buyer and the fact that one entity is trying to

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torate's failure to effectively or fairly review the actions of its representatives.").

37. *See* Ilya Somin, *Controlling the Grasping Hand: Economic Development Takings after* Kelo, 15 SUP. CT. ECON. REV. 183, 192-96 (2007), *available at* http://ssrn.com/abstract_id=874865.

38. *Id.*

39. *See* Thomas J. Miceli & Kathleen Segerson, *The Paradox of Public Use: The Law and Economics of* Kelo v. New London, 14 CONN. ECON. 4, 4-6 (2006) (explaining that the holdout problem is a justification for using eminent domain, assuming that the social benefits of the project exceed the social costs).

buy up an entire set of contiguous parcels.[40] Secret purchase of the parcels attempts to solve the holdout problem by denying sellers information that there is synergistic value they can capture by holding out. Several commentators have posited that government must operate in the sunshine and cannot hide its identity when it seeks to consolidate various land parcels.[41] Hence, the eminent domain power makes sense for transfers of private property to the public domain. But some of these same commentators contend that private entities, being under no constraint against employing secret agents, can use the mechanism to solve the holdout problem, and therefore do not need eminent domain power to buy the parcels they wish to consolidate.[42]

The secret-agent-as-buyer solution works only so long as no one can glean that an entity seeks the entire set of parcels. Even if the buyer hides its identity with respect to each purchase, in order to purchase all the parcels the buyer will eventually have to take the initiative to approach those who have not put their property on the market. This will tip off perceptive observers that someone is really interested in parcels in the area, and eventually will reveal the plans of the buyer, which in turn will encourage holdouts. Hence, use of fictitious entities will delay the holdout problem and thereby potentially decrease the number of holdouts, but it will not eliminate the problem entirely. Eventually, some current owners are likely to discern the buyer's intent, even if not perfectly, and will try to capture some of the synergistic value for themselves.

An example in which a private entity successfully purchased

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40. Thomas W. Merrill, *The Economics of Public Use*, 72 CORNELL L. REV. 61, 81 (1986) ("[R]eal estate developers and others are frequently able to assemble such parcels by using buying agents, option agreements, straw transactions, and the like.").

41. *See, e.g.*, Kelly, *supra* note 24, at 19-22; William A. Fischel, *The Political Economy of Public Use in* Poletown*: How Federal Grants Encourage Excessive Use of Eminent Domain*, 2004 MICH. ST. L. REV. 929, 950 (2004) ("Unlike private developers of such activities . . . community planning must take place in the open, and holdouts will be far more problematic."). As Thomas Merrill stated,

> [A]lthough buying agents, option agreements and straw transactions may work well for private developers, it is unclear whether government can use these devices effectively. The necessary ingredient of these techniques is secrecy, and governments, at least in an open society like the United States, are not very good at keeping secrets.

Merrill, *supra* note 40, at 82.

42. Although a government entity may have a harder time keeping a prospective land acquisition hidden than would a private entity, it may also have more power to punish holdouts. For example, if owners in a residential neighborhood that is slated to be redeveloped to increase the tax base refuse to sell, the local government might decide that the land, if not redeveloped, is most suited for industrial use and rezone the land, thereby imposing the noise, grime, traffic, etc., that goes along with an industrial area on the recalcitrant residents. As my colleague, Manuel Utset, remarked when we discussed this punitive power, the notion that local government has such power is captured in the classic joke that a person might suddenly find that his house is on a one-way, dead-end street.

many small parcels to aggregate them for a larger project is Disney's purchase of land for Disney World in Orlando, Florida.[43] In 1964 Disney began the process of purchasing the land through agents without revealing its identity as the true purchaser.[44] At that time, it paid about $80 per acre.[45] By May of 1965, it had purchased about 9,000 acres for $1.5 million (about $165 per acre), and suspicion was aroused that some big company was behind the purchase of the land.[46] By June of 1965, Disney had purchased most of the 27,000 acres of land it planned on using, but the price it had to pay for the land had risen. At that time, a newspaper reporter revealed her suspicion that Disney was the true buyer,[47] and the price of land jumped to $80,000 per acre as sellers recognized the value of the land to Disney.[48]

All in all, Disney bought 27,443 acres of land for an average price of $185 per acre.[49] Although this turned out to be a good deal for Disney, as the creation of Disney World has made the land worth much more than the $5 million Disney paid for it,[50] the fact remains that Disney had to pay more than double the initial market value of the property.[51] Moreover, the land Disney bought was essentially swampland,[52] and not an inner city neighborhood where a sudden interest, even by seemingly different individuals, in buying unlisted parcels will quickly signal that the land is being used for some big project. Had the increase in the value of the land been less, and had the signal that a private buyer essentially

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43. Mark Andrews, *Disney Assembled Cast of Buyers to Amass Land Stage for Kingdom*, ORLANDO SENTINEL, May 30, 1993, at K2.

44. *See* T. D. Allman, *The Theme-Parking, Megachurching, Franchising, Exurbing, McMansioning of America: How Walt Disney Changed Everything*, NATIONAL GEOGRAPHIC, March 2007, *available at* http://ngm.nationalgeographic.com/ngm/0703/feature4/; *see also* Wade Sampson, *Emily Bavar Spills the Beans*, MOUSE PLANET, Oct. 4, 2006, http://www.mouseplanet.com/articles.php?art=ww061004ws ("Beginning in 1964, Disney through a variety of dummy corporations quietly began buying large tracts of land, sparking speculation about the identity of the mystery buyer.").

45. J. Dave Harris, *Toward Improved Visualization of Unstructured Information*, Mar. 4, 2005, http://www7.nationalacademies.org/bms/Dave_Harris.ppt; Orlando Vacation Guide: Walt Disney World, http://www.o-towninfo.com/Attractions/Full_Day_Parks/Walt_Disney_World/walt_disney_world.html (last visited Feb. 16, 2008).

46. Harris, *supra* note 45.

47. Emily Bavar, *Is Our "Mystery" Industry Disney?*, Oct. 21, 1965, *in* Wade Sampson, *Emily Bavar Spills the Beans*, MOUSE PLANET, Oct. 4, 2006, http://www.mouseplanet.com/articles.php?art=ww061004ws.

48. Harris, *supra* note 45.

49. *Id.*

50. *See* A History of the Walt Disney World Resort, http://www.disneyworldtrivia.com/trivia/wdwhistory.php (last visited Mar. 10, 2008).

51. One might argue that the increased price reflects that later sellers placed a greater subjective value on the land than those who sold early at close to market value. The nature of the land, however, suggests that landowners had no significant subjective value in it. *See* Allman, *supra* note 44.

52. *Id.*

sought all contiguous property in the area been identified earlier, there is a chance that strategic behavior and the potential for holdouts could have scuttled the Disney project.

Another example often used to show that private entities can overcome hold out problems is Harvard University's secret purchase of land in the Allston neighborhood in Boston. Harvard used an agent to purchase fifty-two acres on its behalf for $88 million.[53] In 1997, when Harvard revealed that it had purchased the land, some local residents and politicians complained that Harvard had used dirty tricks by not revealing that it was the buyer of the property.[54] Harvard defended its right against paying a premium to strategic holdouts who might ask for unreasonable sums for their land knowing that a rich entity like Harvard had plans to buy property in the area.[55] Given the urban setting for this secretive purchase, one might conclude that this example undermines my point that use of agents is of limited value due to signaling.

In fact, the details of Harvard's purchase demonstrate that it does not undermine my point, and in fact some of Harvard's later statements about this purchase support the point. Harvard purchased fourteen separate parcels, all but one of which were commercial or industrial, as they came on the market over a seven-year period.[56] Hence, the signal that the market might have perceived was much weaker than had Harvard needed to buy a larger number of small, residential parcels over a shorter period of time or if Harvard had needed its agent to approach parcel owners who had not put their land up for sale. Even in the context of the secret Allston purchases, savvy residents in Allston were aware that someone was buying up all the available commercial real estate in the area; they just did not know who or why.[57] Thus, even with the secret purchases, Harvard probably paid some premium on the purchases demanded by strategic sellers.[58]

Most interestingly, Harvard later had to defend its purchase,

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53. Tina Cassidy & Don Aucoin, *Harvard Reveals Secret Purchases of 52 Acres Worth $88M in Allston*, BOSTON GLOBE, June 10, 1997, at A1.

54. *Id.*

55. *Id.*; *see also* Sara Rimer, *Some Seeing Crimson at Harvard 'Land Grab'*, N.Y. TIMES, June 17, 1997, at A16.

56. Cassidy & Aucoin, *supra* note 53; Editorial, *A Bum Rap in Allston*, BOSTON HERALD, June 12, 1997, at 34.

57. Cassidy & Aucoin, *supra* note 53.

58. Harvard's agent reported that owners of some parcels adjacent to parcels it purchased offered to sell their parcels, but the agent turned these offers down because the price the owners were asking was too high. *Id.* The fact that these owners approached the agent, rather than vice versa, and asked a price that the agent considered higher than justified, provides some support for the conclusion that some owners were increasing property prices strategically.

not only to some irate members of the public, but to its own University community. In doing so, it essentially conceded that expansion in Cambridge would have been preferable, but noted, "[s]ince most of the campus in Cambridge is surrounded by residential neighborhoods, and displacement of those neighborhoods was not in the university's interests *or in the realm of possibility*, it was necessary to look to other places."[59] Although Harvard never disclosed what rendered the purchase of sufficient contiguous residential parcels in Cambridge impossible, the difficulty of purchasing the parcels anonymously is certainly a strong possibility.

B. Options and Auctions to Purchase the Parcels

Use of an option is another strategy that can help defeat the holdout problem.[60] If there is more than one suitable parcel, the entity seeking land can purchase options on multiple parcels.[61] That entity can then choose to exercise the option to purchase the tracts that will allow it to obtain the needed property at the lowest cost, taking away existing landowners incentives to capture wealth by holding out. Options will only work if there is at least one suitable alternative parcel and, even then, the entity seeking land will need to negotiate and pay for the options. Put another way, costs of the option approach include the cost of potentially locating in a less than ideal location and the cost of negotiating and implementing the options.

In addition, the existence of one alternative may not be sufficient to deter strategic behavior entirely. If one parcel-owner at each site decides that it is worth gambling for the huge payoff that may go to a holdout, rather than accepting a price that is only slightly more than the value of the parcel to him, then the purchaser will still have a holdout problem, only at the option stage. Of course, the purchaser can play each holdout against the other,

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59. Lewis Rice, *Cambridge v. Allston*, HARV. L. BULL., (Summer 2002) (quoting Kathy Spiegelman, Associate Vice President for Planning and Real Estate, Harvard University) (emphasis added), *available at* http://www.law.harvard.edu/alumni/bulletin/2002/summer/feature_1-1.html.

60. *See* Coleman Woodbury, *Land Assembly for Housing Developments*, 1 LAW & CONTEMP. PROBS. 213, 214 (1934) (asserting that the traditional method of land assembly is to start by securing options); *see also* Merrill, *supra* note 40, at 81 and accompanying quote; Ilya Somin, *Overcoming* Poletown*:* County of Wayne v. Hathcock*, Economic Development Takings, and the Future of Public Use*, 2004 MICH. ST. L. REV. 1005, 1027 (2004) ("A second mechanism by which developers can prevent holdout problems without recourse to eminent domain is by means of 'precommitment' strategies.").

61. Woodbury, *supra* note 60, at 214 ("[T]his method consists of quietly securing options on as much of the area to be acquired as possible, often in the name of different persons and of dummy corporations.").

but this will signal to each that they have the potential to strike it rich if they maintain an asking price above the actual value they place on their parcel.[62]

When there are multiple sites that are almost equally good for its project, a likely buyer can also try to use an auction to prevent holdouts.[63] An auction at which the buyer agrees to pay the lowest asking price bid for all the parcels for any one of the alternative sites, however, is problematic because it encourages sellers to bid strategically, asking a price above their true value for the property but low enough, in their estimation, not to cause the buyer to reject the site that includes their parcel.[64] Economists have shown that bidders can be induced to reveal their true value by use of a second price auction, one in which a buyer agrees to pay the owners of the alternative with the lowest bid, the price asked by the owners of the alternative with the second lowest bid.[65] It is not clear whether this mechanism will work when the buyer is seeking property that is owned by several individuals, and it is the total of all their bids that is crucial. Assuming that owners reveal their true values in a second price auction, the price paid for the property in aggregate will, by definition of the second price mechanism, be greater than the value of the land to the owners. This leaves a question about how the owners of the property will divide the surplus that the buyer offers them together, which reintroduces the potential for holdouts.

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62. Essentially, if there is one potential buyer with holdouts for each of the two alternative sites, the situation is a monopsonist trying to buy in an oligopoly market. If negotiation is not costless and takes time, and there is a deadline by which the monopsonist needs to make the purchase, then there is some chance that one of the holdouts will capture some rent from strategic action. A potential purchaser might try to set up a "voting" mechanism to play parcel owners against each other to get them to reveal the true values they place on their parcels (e.g., the price they would ask for their parcels aside from strategic behavior to try to capture surplus). *See, e.g.*, T. Nicolaus Tideman & Gordon Tullock, *A New and Superior Process for Making Social Choices*, 84 J. POL. ECON. 1145 (1976) (describing the process by which individuals are motivated to reveal their public good preferences). But such mechanisms rely on a penalty that any voter who flips the decision about which land to use pays to those harmed by the flip, and that penalty mechanism will not work if the parcel owners ultimately get paid according to the value they claim they derive from the outcome for which they vote (i.e. for the value of the land that they claim). *See id*. at 1148-50.

63. *See* R. Preston McAfee & John McMillan, *Auctions and Bidding*, 25 J. ECON. LIT. 699, 701 (1987) ("An auction is a market institution with an explicit set of rules determining resource allocation and prices on the basis of bids from the market participants.").

64. *Id*. at 726 ("[T]he choice of bids reflects individuals' strategic attempts to manipulate the selling price, so that the quantity and price interval reached are not necessarily those of the competitive equilibrium.").

65. *See* Stephen A. Smith & Michael H. Rothkopf, *Simultaneous Bidding with a Fixed Charge if Any Bid is Successful*, 33 OPERATIONS RES. 28, 30 (1985) ("'Second price auctions,' [are] those in which the highest bid wins, but the bidder pays the amount of the second highest bid.").

C. Precommitment Strategies

Private entities might use a precommitment strategy to avoid the holdout problem. If the value of each parcel is the same, the entity desiring to purchase a group of contiguous parcels can condition the purchase of any parcel on the purchase of all, and offer the same price for every parcel.[66] Thus, a holdout knows that he will not get anything above what other parcel owners receive.

There are, however, some significant problems with this strategy. The first problem is that precommitment must be done publicly to work. That is, the purchaser must acknowledge its interest in buying the entire tract, which will encourage all potential sellers to try to capture the surplus from the project. The second problem is that, in the real world, each parcel will not be worth the same value to each owner. The third problem is that there is nothing to stop a holdout from refusing to agree to the price, essentially asking the buyer to go back to the other sellers and agree to modify their contracts to allow the sale to happen, which brings the buyer back to free rider problem. Together these problems imply that the purchaser will have to offer a price that will be acceptable to every parcel owner.

Even without a holdout problem, to be successful a purchaser will have to price *every* parcel at the premium that meets the subjective valuation of the most demanding landowner.[67] In essence, precommitment avoids holdouts only by forfeiting a premium to those who do not place significant subjective value on the land. If, in addition to having owners who place different values on the parcels, the parcels are not similar in terms of their inherent traits

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66.

> One common practice is the use of the so-called 'precommitment' contract, whereby a developer signs contracts with all potential sellers in a targeted area, promising to pay each owner the same price. As a negotiating strategy, this allows the developer to argue convincingly that he cannot pay a substantially higher price to a holdout without incurring ruinous expenses in the form of higher payments that would thereby be owed to every other seller.

Cohen, *supra* note 13, at 568. *See also* Somin, *supra* note 37, at 208-09; Donald J. Kochan, *"Public Use" and the Independent Judiciary: Condemnation in an Interest-Group Perspective*, 3 TEX. REV. L. & POL. 49, 88-90 (1998). Kochan contends that because precommitment works in the context of tender offers for corporations, it is a proven mechanism for overcoming holdouts, and Somin merely cites Kochan for support that precommitment can overcome holdout problems in amassing parcels of land. Neither seriously addresses the problems raised for precommitment strategies by the facts that parcels of land are not identical and have subjective value. Nor does Kochan address the fact that a buyer of stock essentially gains control by purchasing a controlling percentage of shares, and the only holdout the buyer needs to worry about is an existing controlling shareholder.

67. *See, e.g.*, EPSTEIN, *supra* note 29, at 183-84 (noting that parcel owners should be compensated for subjective value of their land).

(e.g., they have different geographical features or locations that objectively would change their value), then the purchaser must specify the factors on which it bases its different offers for the various parcels. This may be perceived by a parcel owner as unfair and sour his willingness to negotiate at all if he finds that these factors do not capture the attributes of the land that he considers valuable. For these reasons, it is not surprising that the literature cites no examples of private entities using precommitment strategies to amass large areas of land from numerous contiguous parcels.

D. Bottom Line on Whether the Kelo *Power May Promote Efficient Land Transfers*

Analysis of the alternatives to eminent domain manifests that whether *Kelo* power is an efficient way to transfer land from one set of private owners to another depends on whether it will be abused,[68] as well as empirical questions about the costs of implementing the alternatives compared with the cost of implementing eminent domain plus the costs of abuses of eminent domain. The goal for state legislatures should be first to discourage local governments from using the *Kelo* power when the resulting property transfer will be inefficient or unfair, and second to provide an efficient mechanism for providing compensation to those whose property is taken even when the resulting transfer is welfare-increasing.

V. CONDITIONS ON *KELO* POWER TO RETAIN BENEFITS BUT AVOID ABUSES

If state legislatures are to enable local governments to use the *Kelo* power to facilitate efficient property transfers without empowering them to abuse the power, they will have to address three issues. First, local governments will have to pay an owner whose property is taken the full value of the property to him — the reserve price at which he would voluntarily sell the property absent strategic behavior. I will refer to this value as the idiosyncratic value of the current parcel owner, recognizing that it will include some objectively determinable value, such as the opportunity cost of the owner having to move, and some subjective value, such as

68. *See* Dana Berliner, *Public Power, Private Gain: The Abuse of Eminent Domain,* CAPITALISM MAGAZINE, Feb. 14, 2005, http://www.capmag.com/article.asp?ID=4420 ("Power without any checks inevitably leads to abuse, and eminent domain is certainly no exception.").

the owner's particular attachment to the property. Second, local governments should have to engage in something comparable to an auction when transferring the property to a private entity to ensure that the property goes to the entity that maximizes the net social value of the property. Finally, the procedures for implementing the use of the *Kelo* power should be sufficiently efficient so that they are cheaper than the transaction costs private entities would incur using alternative means to aggregate the necessary parcels for their projects without use of eminent domain.

A. Recognition of Existing Owners' Idiosyncratic Value

Currently, the constitutional doctrine of eminent domain provides that owners receive market value as just compensation under the Fifth Amendment for any property that the government has taken.[69] The value to the individual owners will often exceed the market value.[70] When it does, the local government may have an incentive to transfer property to an owner that puts it to a use that generates a total value that is less than the value to the current owners, which is an inefficient outcome. This can be avoided by changing compensation to provide owners their idiosyncratic value.[71] Although state legislatures cannot change the just compensation requirement imposed by the Constitution because market value is a lower bound on idiosyncratic value, these legislatures can demand that local governments pay the greater idiosyncratic value without running afoul of constitutional doctrine.

Idiosyncratic value, however, cannot be determined as easily or

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69. Market value under the takings clause of the Fifth Amendment is defined by case law as "what a willing buyer would pay in cash to a willing seller." United States v. Miller, 317 U.S. 369, 374 (1943).

70. Nathan Burdsal, *Just Compensation and the Seller's Paradox*, 20 BYU J. PUB. L. 79, 84 (2005) ("Empirical evidence supports the contention that the fair market value fails to justly compensate landowners. Specifically, the disparity between the 'fair market' value and the jury award or negotiated settlement — presumably based on what a jury or arbitrator believe the fair market value to be — is often very large.").

71. Others have recognized this problem and also proposed that owners be paid their subjective value for takings that are especially prone to give rise to inefficient property transfers. *See* James E. Krier & Christopher Serkin, *Public Ruses*, 2004 MICH. ST. L. REV. 859, 867 ("[J]ust compensation is adjusted upwards in specific ways as the use of condemned property moves from classic public use to possible public ruse to naked transfer."); Merrill, *supra* note 40, at 90-93 (proposing that parcel owners be compensated at 150% of the market value for land with high subjective value); *cf.* Merrill, *supra* note 40, at 84 (advocating that courts scrutinize takings of property with high subjective values, because inadequacy of compensation will give signals to condemnors that might lead them to move property to a lower valued use). Nicole Garnett has argued that owners already are compensated at above market value to provide them with some of their idiosyncratic value, but that for takings that transfer land to private entities, compensation is still insufficient to cover "noninstrumental" losses. Nicole Stelle Garnett, *The Neglected Political Economy of Eminent Domain*, 105 MICH. L. REV. 101, 148 (2006).

perfectly as market value.[72] In the context of determining compensation for takings, every parcel owner has an incentive to claim that the value of the property to her is greater than it really is. But, tort systems frequently deal with issues of subjective value, for example, when they award damages for pain and suffering. Such determinations are based on decision-makers determining the factors that bear on injuries that are unique to the plaintiff, and then deciding how much money they think would compensate for those injuries. In essence, the subjective value determination is reduced to an objective determination of a reasonable value attributable to one in the plaintiff's position. The same technique can be used to determine subjective value of property.[73]

The Supreme Court has held that a person whose property is condemned does not have a federal constitutional right to a jury trial to determine just compensation,[74] but many states provide such a right by statute or state constitution.[75] Nonetheless, juries may not be the best mechanism for determining subjective value. Depending on who is actually on a particular jury, the determination of reasonable value will vary greatly from case to case.[76] This impedes the local government from accurately estimating how much it will have to pay for property taken under the *Kelo* power, essentially imposing risk which can unduly discourage use of the power. In addition, doctors and medical insurers claim that jury awards of subjective value, or at least pain and suffering, tend to be inflated.[77] If compensation is greater than actual value to a parcel owner whose property was taken, the owner receives a

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72. *See* John Fee, *Eminent Domain and the Sanctity of Home*, 81 NOTRE DAME L. REV. 783, 812 (2006) ("The two most serious problems with awarding compensation according to an owner's subjective value have to do with unreasonable and unverified subjective values.").

73. Laura H. Burney*, Just Compensation and the Condemnation of Future Interests: Empirical Evidence on the Failure of Fair Market Value*, 1989 BYU L. REV. 789, 799 (1989) ("If juries are permitted to decide questions as nebulous as mental anguish and pain and suffering, they should be allowed to determine a 'fair' condemnation award.").

74. *See* United States v. Reynolds, 397 U.S. 14, 18 (1970) ("[T]here is no constitutional right to a jury in eminent domain proceedings."); *see also* FED. R. CIV. P. 71.1(h)(2)(A) (In eminent domain under federal law, when a party has requested a jury to determine just compensation, a court may instead appoint a commission to determine just compensation "because of the character, location, or quantity of the property to be condemned or for other just reasons.").

75. *See, e.g.*, MICH. COMP. LAWS § 213.54 (2007); CAL. CONST. art. I, § 19; ILL. CONST. art. I, § 15.

76. Thus, the main scholarly critique of jury awards of subjective harms, such as pain and suffering, appears to be that the awards are arbitrary. *See, e.g.,* Mark A. Geistfeld, *Due Process and the Determination of Pain and Suffering Tort Damages*, 55 DEPAUL L. REV. 331, 338-39 (2006).

77. *See* Neil Vidmar, Russell M. Robinson II & Kara MacKillop, "*Judicial Hellholes:" Medical Malpractice Claims, Verdicts and the "Doctor Exodus" in Illinois*, 59 VAND. L. REV. 1309, 1312 (2006).

windfall. Moreover, such excessive compensation awards will discourage efficient use of the *Kelo* power, as the government will decline to transfer land to users who value it more than the current owners but less than the compensation the government would have to pay. Finally, jury trials are a notoriously time and labor-intensive means of fact finding. Because the evidence that will bear on idiosyncratic value is, almost by definition, unique to each parcel owner, the trial process could easily get mired in technical evidentiary issues that in turn can encourage appeals, which would seriously delay the compensation determination.[78] In short, if compensation were to include idiosyncratic value, the jury process might compromise efficient *Kelo* takings by adding administrative and risk costs, or perhaps even inflating just compensation awards beyond the actual harm to the property owner such that the alternative mechanisms for aggregating parcels of property would be less costly.

Therefore, when the right to a jury trial is provided by statute, the state legislature should override that provision and create a special state-wide board to determine idiosyncratic value for *Kelo* takings. Boards can use less formal fact-finding procedures than jury trials, and can develop expertise in evaluating the kinds of evidence parcel owners are likely to present of idiosyncratic value. Such evidence can be put in various categories about which the board can develop expertise. For example, opportunity costs of having to move and subjective attachment to the property would seem to include most of the types of evidence that parcel owners might claim contribute to idiosyncratic value above market value.[79]

The opportunity cost issue boils down to determining the cost of obtaining other land that is at least as good from the perspective of the initial landowner. For example, the parcel owner might be a resident who offers evidence that she has a job in the local area and little ability to obtain a job paying a similar amount elsewhere. Idiosyncratic value would then include the lesser of the cost of obtaining other adequate housing in the local area or the

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78. Over time, as the board creates precedents for idiosyncratic value determinations, the process may be sufficiently efficient that it might even cost less than jury trials to determine market value and hence might lower the present administrative costs of just compensation.

79. Nicolle Garnett summarizes the components of subjective value that would not be compensated by market value. In addition to objective idiosyncratic and psychological value, she includes a premium due to the endowment effect and dignitary harms from the fear that the government will force homeowners from their property. *See* Garnett, *supra* note 71, at 107-10. Both of these can be taken into account by decisionmakers setting subjective value of the taken property if the decisionmakers deem them legitimate constituents of such value.

lost wages from having to take another job. Subjective attachment would cover any unique psychological attachment to the land. For example, if a land owner's family owned a house for four generations, and that particular owner had lived there for seventy years, one could reasonably conclude that the owner would have more attachment than if the owner was a landlord who rented to tenants who generally moved in and out every year or two. Because the types of evidence parcel owners might present would tend to be of the same type, over time, a board could develop expertise and precedent that would render the idiosyncratic value determinations more transparent (and therefore accountable) and more predictable.

Legislators may not be able to eliminate the right to jury determination of just compensation where that right is provided by the state constitution. In addition, even if the legislature can eliminate the role of the jury by statute, legislators may be concerned that property owners will feel slighted in the *Kelo* context if they are deprived of this right. It would be perverse if legislation meant to protect property owners from abuses of eminent domain power was perceived as depriving the owners of the right to get their valuation claims heard by a jury. One way out of this conundrum may be for the legislature to offer a parcel owner whose land is taken under the *Kelo* power the alternative of getting idiosyncratic value rather than market value for his property, if he is willing to waive his right to a jury trial. Because market value is necessarily lower than idiosyncratic value, many parcel owners would have an incentive to accept this alternative. Most significantly, those who believe that their idiosyncratic value is significantly greater than market value would be most apt to accept the alternative, and for the others, use of market value will be sufficiently close to their actual value that we need not worry about the inefficiencies and unfairness caused by use of market value.

One further objection to my proposal for just compensation is that it would deprive owners of the value that they could have derived from a private sale of the property. Usually when a person sells property, the seller and buyer divide any surplus from the transfer of ownership as part of their agreement.[80] That is what

80. *See* Lee Anne Fennell, *Taking Eminent Domain Apart*, 2004 MICH. ST. L. REV. 957, 965-66 (2004). Two scholars recently proposed giving original parcel owners a choice between fair market value and a share in the project for which their land is taken as a way of giving the initial owners their expectation in the surplus that might be derived from sale. Amnon Lehavi & Amir N. Licht, *Eminent Domain, Inc.,* 107 COLUM. L. REV. 1704, 1734-35 (2007). I question whether initial owners are entitled to that expectation in the context where use of the *Kelo* power is warranted and therefore they could not otherwise have obtained any of the value that results from aggregation of parcels. I would also note that,

makes a private sale a wealth-increasing transaction. My position is predicated on the assumption that neither the original nor the ultimate private owner of property taken by the *Kelo* power is entitled to surplus from the transfer that does not derive from their unique abilities to put the property to a highest valuing use. In essence, if the transfer is wealth-increasing but would not come about by private transactions, because of strategic behavior or other transaction costs that only use of eminent domain can overcome, the government, as enabler of the transfer, deserves the surplus. The original owner cannot have a reasonable expectation in getting the value that results from aggregation of his parcel with others if that aggregation cannot occur but for the use of eminent domain. Moreover, if local government action is necessary for a wealth-maximizing transfer, we want to give the government an incentive to take that action.

B. "Auctioning" Kelo *Property*

The second problem with the *Kelo* power, as it is currently exercised, is the ability of government to transfer land to political supporters or other friends. This encourages rent seeking and forfeits the synergistic values that the government creates by use of eminent domain.[81] In order to retain this value, the government needs to harness the incentives of other potential recipients of the property. In other words, the local government should essentially be required to auction the condemned land to the highest bidder, thereby capturing any value from the conglomeration of the individual parcels that is not unique to the ultimate recipient for itself.

One might counter that the payoff to private entities who obtain property after a local government exercises its *Kelo* power provides a needed incentive to private entities to identify potential sites for projects that can result in wealth-maximizing property aggregation. That argument is analogous to those of corporate law

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even if I did think that initial owners were entitled to that expectation, at least in the residential setting (which is the most troublesome), I doubt that many landowners would choose Lehavi and Licht's option to invest in the project rather than taking a certain sum that they could use to purchase a replacement for their residence.

81. For this reason, several scholars have invoked public choice theory and political realism to argue that use of the *Kelo* power cannot be constrained adequately by the political process even with more transparent procedures. *See* Somin, *supra* note 37, at 210-13 (using a public choice analysis); Garnett, *supra* note 71, at 110-17 (noting, in the context of discussing use of eminent domain to build Chicago's expressways, the realities that political power depends on attachment to cohesive communities and other connections). These scholars, however, ignore the potential of harnessing other private entities with significant interests in the property to highlight uncertainties and inefficiencies of a proposed use of the *Kelo* power.

scholars against allowing targets to hold auctions following tender offers.[82] In the context of *Kelo* takings, however, entrepreneurial companies are not as likely to have the capability to identify opportunities to create synergistic property value as corporate raiders are to have the ability to identify opportunities for creating value by taking over other corporations and replacing their managers. The information about land values and uses is much more public than information about corporate operations. Hence, the opportunities for creating such value will often be recognized by many people, and there will be less need and less return from engaging in identifying such opportunities.

If there is a situation involving non-public information about the potential uses of contiguous land parcels, that information will most likely be known to local government officials who may know and control plans for changing land uses around the parcels. Local government officials thus are analogous to the original managers of the corporation: they have much of the information needed to determine whether a change in control of the property would be wealth-maximizing. Essentially, they can do much to prevent any aggregation going forward, both by declining to exercise the *Kelo* power and by zoning of the affected property. Unlike the corporate context, however, local officials do not lose their jobs if the transfer occurs. In fact, they have incentives to facilitate wealth-increasing transfers to increase revenues to the city, either from increased taxable property values or from direct payments from *Kelo* property recipients. Hence, unlike the corporate takeover context, local officials have the means and incentive to identify sites for which property aggregation will lead to wealth increases.[83]

A more significant problem for constraining abuses of the wealth transfer in the *Kelo* context is the actual mechanism by which an appropriate auction can be conducted. In most cases, justification of a project depends on external benefits that accrue

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82. *See* Frank H. Easterbrook & Daniel R. Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 HARV. L. REV. 1161, 1177-79 (1981) (arguing against auctions for corporate takeovers because they transfer surplus from initial offerers to target shareholders, thereby eliminating incentives for offerers to identify underpriced corporations); Alan Schwartz, *Search Theory and the Tender Offer Auction*, 2 J.L. ECON. & ORG. 229, 236-38 (1986) (auctions in the corporate takeover market decrease the search for undervalued corporations).

83. Local government officials, however, do have an incentive to transfer the surplus from the land transfer to those who will best serve the officials' personal interest. In this sense, while we can expect officials to look for opportunities for such land transfer, we cannot trust them to maximize the benefit to the public they serve. In such situations, local officials are analogous to "unfaithful" corporate managers, and auctions are an appropriate means of reducing the agency costs between such managers and the body to which they owe a duty of loyalty. *See* Peter Cramton & Alan Schwartz, *Using Auction Theory to Inform Takeover Regulation*, 7 J.L. ECON. & ORG. 27, 35-36 (1991).

to the local population and the local governmental entity. Hence, the value of the project to the putative bidder, the potential property transferee, will not reflect the entire social value of the project. A straightforward auction will not work because the use that maximizes value to the bidder may not maximize the net social value of the tract, or even the value that the local government derives from exercising the *Kelo* power.[84]

Whatever process a local entity is required to use to exercise the *Kelo* power, like an auction, it should be structured to strip away value that does not derive from unique attributes of the subsequent owner, leaving the synergistic value of aggregation captured by the local government. Essentially, the process should incorporate competition between private bidders for a *Kelo* project. Perhaps the best process to promote competition from private bidders would require a local government to announce proposed projects in advance, and to allow any interested entities (including other potential users of the land) to file comments supporting, opposing, or suggesting alternatives to the project. This will permit initially identified recipient competitors to propose their own projects and to submit evidence that their projects will provide more benefit to the local community than the project initially proposed. The process should mandate that the local government justify the project it chooses as the one that maximizes the value to the citizens of the municipality. By analogy to notice and comment rulemaking, the process should mandate either judicial or administrative review of the agency reasons for its choice that defers to the ultimate facts found and evaluations made by the local government, but demands a connection of those facts to the record and a thorough explanation of how the local government reached its decision.[85]

The requirement that local government justify its decision as one that maximizes value to its citizens would also alleviate the problem, in many cases, that the private entity for whom the land is taken never follows through with development of the land. Consideration of whether a planned project will provide the requisite

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84. Lehavi and Licht, like I, also envision some process that auctions the land to the highest value owner. Lehavi & Licht, *supra* note 80, 1734. These authors, however, envision an actual auction conducted by a "special purpose development corporation" to whom the local government would transfer the land after it is condemned. As I explain, an actual auction is problematic because the value of the property after transfer may be composed significantly of external benefits from the new use, and a private entity will not be willing to include these benefits in its bids.

85. As I have written elsewhere, the review process of agency reasoning provides salutary benefits of ferreting out agency dishonesty and inducing care in the agency decision-making process. *See generally* Mark Seidenfeld, *Cognitive Loafing, Social Conformity, and Judicial Review of Agency Rulemaking*, 87 CORNELL L. REV. 486 (2002).

public benefits necessarily takes into account the probability that those benefits do not materialize. A public process in which several entities compete for the land will give each an incentive to monitor the reliability of the others' assertions about public benefits that will accrue from their proposals. Moreover, a private entity that truly believes it will provide public benefits can guaranty such benefits, perhaps in the form of a surety bond that agrees to pay the local government if a property recipient fails to deliver on its promises.

V. CONCLUSION

The *Kelo* case generated an enormous public outcry about the potential impact of local government use of eminent domain because, in that case, the City of New London seemed to rob from the poor residents whose property was taken to give to the rich and well connected Pfizer Company. Many hoped that the Supreme Court would play the role of Robin Hood and stop the abuses by modern day Sheriffs of Nottingham—local governments seeking to increase their tax base. Instead, the Court reaffirmed that taking of property to transfer it from one set of private entities to another is not constitutionally improper, and thereby left it to state legislatures to be Robin Hood in the modern analog to the classic tale.

I have suggested that the best way for legislatures to play this role is to pass statutes entitling landowners to idiosyncratic value as compensation for property taken for redevelopment and require governments to employ a process that invites competing bids for the land at issue, subject to judicial review, thereby forcing the government to justify its ultimate decision to take the property and transfer it to its new private owner. The problems of determining idiosyncratic value are not so great that a state-wide board could not develop both expertise and a list of factors, making the determination both rational and predictable. In addition, competition for use of land that a local government condemns, with the intent to transfer it to a private entity, can constrain the use of eminent domain so that the benefit of aggregating parcels of land to allow a more valuable use flows to the jurisdiction that exercises the eminent domain power, rather than to those who are simply politically powerful and well connected.

ENDS AND MEANS IN TAKINGS LAW AFTER *LINGLE V. CHEVRON*

ALAN ROMERO*

I. INTRODUCTION

For twenty-five years, the Supreme Court and others said that when a land use regulation "does not substantially advance legiti-

* Professor of Law, University of Wyoming College of Law. B.A., Brigham Young University, 1990; J.D., Harvard Law School, 1993. Thanks to the Pacific Legal Foundation and the George Hopper Faculty Research Fund for their financial support of this Article.

mate state interests," it is a taking requiring just compensation under the Fifth Amendment.[1] In 2002, the United States District Court for Hawaii applied this rule in holding that Hawaii took property without compensation when it enacted a law limiting the rent that an oil company could charge lessees of company-owned service stations.[2] The court found that the law would not serve the state's purpose of lowering gasoline prices but would merely "create a premium that lessee-dealers can recognize upon selling their leases."[3] The Ninth Circuit affirmed that the law did not substantially advance a legitimate state interest and was therefore a taking.[4]

In *Lingle v. Chevron U.S.A., Inc.*, however, the Supreme Court reversed the decision, declaring that failure to substantially advance a legitimate state interest does not make a regulation a taking.[5] The Court reasoned that this substantial advancement test "prescribes an inquiry in the nature of a due process, not a takings, test."[6] "[A] regulation that fails to serve any legitimate governmental objective may be so arbitrary or irrational that it runs afoul of the Due Process Clause" and therefore would be constitutionally invalid.[7] But that does not make the regulation a taking, which would require payment of compensation to the regulated owner. Therefore, the Court concluded, "the 'substantially advances' formula is not a valid takings test, and . . . it has no proper place in our takings jurisprudence."[8]

In this Article, I agree with the Court that the substantial advancement test, as the Court understood it in *Lingle*, should not be applied "as a freestanding takings test."[9] The Court understood the test to be a mere duplication of the requirements of substantive due process: the regulation must be a rational way to accomplish a permissible public purpose. The Court was right that the Takings Clause itself does not create such a requirement, that it

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1. Agins v. City of Tiburon, 447 U.S. 255, 260 (1980); *see also* Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 834 (1987) ("We have long recognized that land-use regulation does not effect a taking if it 'substantially advance[s] legitimate state interests' . . . ." (alteration in original) (quoting *Agins*, 447 U.S. at 260)); Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 127 (1978) ("[A] use restriction . . . may constitute a 'taking' if not reasonably necessary to the effectuation of a substantial public purpose . . . ."); *infra* Parts II.A, II.B.

2. Chevron U.S.A., Inc. v. Cayetano, 198 F. Supp. 2d 1182 (D. Haw. 2002), *aff'd sub nom.*, Chevron USA, Inc. v. Bronster, 363 F.3d 846 (9th Cir. 2004), *rev'd sub nom.*, Lingle v. Chevron U.S.A. Inc., 544 U.S. 528 (2005).

3. *Id.* at 1182.

4. *Chevron USA. Inc.*, 363 F.3d at 855-58.

5. 544 U.S. 528, 548 (2005).

6. *Id.* at 540.

7. *Id*. at 542.

8. *Id*. at 548.

9. *Id*. at 540.

does not directly require compensation for irrational regulations, but only for regulations that "take" property.

However, the Court's rejection of an independent takings test of rationality should not be taken more broadly than that. The substantial advancement test could be understood as different from substantive due process. *Lingle* does not address such possible alternative meanings of the test. Even though *Lingle* may require abandoning the language of the substantial advancement test, it does not require abandoning other ideas that language might have represented. In fact, *Lingle* itself implicitly reaffirms some of the ideas that other courts and commentators have understood the substantial advancement test to represent.

Part II of this Article discusses the creation and development of the substantial advancement test, identifying the ideas underlying the verbal formulation. I then argue that two of those general ideas remain valid even after *Lingle*. In Part III, I argue that a regulation that denies substantive due process—however the requirements of substantive due process are described—requires compensation under the Takings Clause, not just invalidation under the Due Process Clause, if the regulation is actually applied to a property. The government can terminate existing private property rights in only one of two cases: either the government's action is an exercise of the police power that qualifies or overrides those private property rights, or the government pays just compensation. Most of the time, land use regulation does not require compensation because, as Justice Holmes put it, the "seemingly absolute protection" of property rights is subject to "an implied limitation" and to some uncertain extent those rights "must yield to the police power."[10] Deciding the extent to which private property is subject to police power regulation without compensation has been notoriously difficult. But a land use regulation that does not rationally advance a permissible public purpose—that violates substantive due process—is not an exercise of the police power at all. Private property rights are not implicitly subject to such invalid exercises of power. If such a regulation nevertheless is enforced against the owner, the owner must be compensated for the taking of her property rights. As *Lingle* emphasizes, the Due Process Clause, not the Takings Clause, defines the boundaries of police power action. But when the government acts outside those boundaries, it is no longer merely exercising an implied limitation on private property rights, and is thus taking property that belongs to a private person. That requires compensation.

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10. Pa. Coal Co. v. Mahon, 260 U.S. 393, 413, 415 (1922).

In Part IV, I argue that the Takings Clause itself does require consideration of a regulation's means and ends, but not in the same way that substantive due process requires. *Lingle* rejected only a takings test that duplicates substantive due process. *Lingle* reaffirmed the fundamental principle of the Takings Clause to prevent regulation "from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole."[11] Therefore, the Court indicated a regulation may be a taking because of "how any regulatory burden is *distributed* among property owners," and not just because of how large the burden is.[12] A regulation's means and ends may make the regulation unfair to the individual, regardless of the magnitude of the owner's loss.

In this part of the Article, I also identify ways in which regulatory means and ends may indicate unfair distribution of burdens. Some regulatory means may serve a permissible public purpose, and therefore satisfy substantive due process, but do so in a way that inevitably results in unfairly distributed burdens. Regulatory means that are not reciprocal—that benefit others but not the regulated owners—can be unfair in this way because the purpose they serve does not include a benefit to the regulated owners themselves. Unfairly distributed burdens may also result from regulations that restrain properties that are not responsible for the problem to be solved. Again, the regulation rationally advances a permissible purpose in satisfaction of substantive due process, but the choice of means to that end is unfair. Furthermore, the purpose or end of a regulation may be permissible under substantive due process but inherently indicate unfairly distributed burdens and should therefore require compensation. Specifically, when a regulation is intended to benefit only other owners, subsidize governmental functions, reduce the cost of property targeted for public acquisition, or otherwise accomplish some bad faith purpose, the regulatory purpose does help identify how a regulatory burden is distributed among property owners and, therefore, whether the regulation requires just compensation.

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11. Armstrong v. United States, 364 U.S. 40, 49 (1960).
12. *Lingle*, 544 U.S. at 542.

II. THE BIRTH, LIFE, AND UNTIMELY DEATH OF THE SUBSTANTIAL ADVANCEMENT TEST

A. Origin of the Substantial Advancement Test

The Supreme Court has long reviewed whether land use regulations are rational means to accomplish legitimate public ends. The early zoning cases, however, did not say an irrational land use regulation would be a taking requiring just compensation. Rather, the early cases said that an irrational regulation would violate substantive due process. Substantive due process required a land use regulation, like any other type of regulation, to be "reasonably necessary" to accomplish some legitimate public purpose.[13] In *Village of Euclid v. Ambler Realty Co.*, the Supreme Court upheld a zoning ordinance against a due process challenge because it was not "clearly arbitrary and unreasonable, having no substantial relation to the public health, safety, morals, or general welfare."[14] But in *Nectow v. City of Cambridge*,[15] the Supreme Court held that a residential zoning restriction denied an owner substantive due process because its application to the particular property did "not bear a substantial relation to the public health, safety, morals, or general welfare."[16]

A few decades later, however, the Court seemed to confuse this substantive due process test with regulatory takings law. The confusion may have started in 1962 with *Goldblatt v. Town of Hempstead*.[17] In *Goldblatt*, the property owners complained that local regulation of dredging and excavation took their property and sand and gravel business without compensation.[18] The Court acknowledged that a land use regulation can "be so onerous as to constitute a taking which constitutionally requires compensation," but concluded that the impact of the regulation was not "sufficient to render it an unconstitutional taking if it is otherwise a valid police regulation."[19] The Court thus seemed to suggest that, even though

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13. *See, e.g.*, Lawton v. Steele, 152 U.S. 133, 137 (1894).

14. 272 U.S. 365, 395 (1926).

15. 277 U.S. 183 (1928).

16. *Id.* at 188. The Court explained that ordinarily it would not substitute its judgment of the public welfare for the judgment of the zoning authorities. But, because the lower court had found that the residential restriction would not further the public welfare at all because the strip of land was useless for residential purposes and was bordered by commercial uses, the restriction violated the Due Process Clause. *See id.* at 188-89.

17. 369 U.S. 590 (1962).

18. *See id.* at 592 ("Appellants contended, *inter alia*, that the ordinance was unconstitutional because . . . it was not regulatory of their business but completely prohibitory and confiscated their property without compensation . . . .").

19. *Id.* at 594.

the burden of the regulation wasn't enough to amount to a taking, the regulation might still be an unconstitutional taking if it was not a valid exercise of the police power, rather than simply being invalid as a deprivation of substantive due process.[20] The Court went on to evaluate whether the regulation was a reasonable means to protect public safety, citing *Lawton v. Steele* and other substantive due process cases. The Court concluded that the property owners had not met their burden of proving the regulation unreasonable, and the regulation therefore was valid.[21]

In 1978, the Court observed in *Penn Central Transportation Co. v. City of New York*[22] that "[t]he question of what constitutes a 'taking' for purposes of the Fifth Amendment has proved to be a problem of considerable difficulty," and "review[ed] the factors that have shaped the jurisprudence of the Fifth Amendment injunction" against uncompensated takings.[23] In doing so, the Court discussed *Goldblatt* and correctly observed that "[i]t is, of course, implicit in *Goldblatt* that a use restriction on real property may constitute a 'taking' if not reasonably necessary to the effectuation of a substantial public purpose."[24]

However, *Lingle* states that the substantial advancement test was "minted" in a 1980 decision, *Agins v. City of Tiburon*,[25] not in *Goldblatt* or *Penn Central*.[26] *Agins* stated that "[t]he application of a general zoning law to particular property effects a taking if the ordinance does not substantially advance legitimate state inter-

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20. In a recent article discussing *Lingle*, Robert G. Dreher argues that "the implication that Justice Brennan read into *Goldblatt*—that an action that does not serve a substantial public purpose is a taking—simply cannot be drawn from that case." Robert G. Dreher, Lingle*'s Legacy: Untangling Substantive Due Process from Takings Doctrine*, 30 HARV. ENVTL. L. REV. 371, 391 (2006). Dreher emphasizes that, although the Court addressed and rejected the possibility that the regulation was a taking, the Court "upheld the ordinance as a valid exercise of the police power under due process." *Id*. at 390. Although it is true that the Court upheld the regulation because it satisfied substantive due process, the Court discussed at some length the property owners' taking claim, which the owners clearly had asserted. The Court addressed the extent of the financial impact, citing *Pennsylvania Coal*, and then clearly was discussing the Takings Clause, not substantive due process, when it said that the regulation's impact alone would not be a taking requiring just compensation "if it is otherwise a valid police regulation." *Goldblatt*, 369 U.S. at 594.

21. *Goldblatt*, 369 U.S. at 594-96.

22. 438 U.S. 104 (1978).

23. *Id*. at 123.

24. *Id*. at 127.

25. 447 U.S. 255 (1980).

26. Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 540 (2005); *see also* D. Benjamin Barros, *At Last, Some Clarity: The Potential Long-Term Impact of* Lingle v. Chevron *and the Separation of Takings and Substantive Due Process*, 69 ALB. L. REV. 343, 345 (2005) ("The test is generally attributed to the 1980 case *Agins v. City of Tiburon*, but has its origins in the *Penn Central Transportation Co. v. City of New York* case decided two years earlier.") (footnote omitted).

ests."[27] Since this passage in *Agins* initially cites only *Nectow* and then discusses *Euclid*, both due process decisions, it seems the Court simply was careless in characterizing a due process test as a takings test.[28] *Goldblatt*, on the other hand, did not simply mislabel due process language. Although without any explanation, the Court did indicate that even if the burden of a regulation is not great enough to be a taking, the regulation might still be a taking if it was not a valid exercise of the police power within the boundaries of the Due Process Clause. The Court in *Penn Central* seems to have correctly understood and accepted *Goldblatt*. So, even if the language of the substantial advancement test of *Agins* "was derived from due process, not takings, precedents,"[29] it should not be casually dismissed as merely a clumsy oversight.[30]

B. Application and Evolution of the Substantial Advancement Test

The Supreme Court subsequently repeated the substantial advancement test several times. In *Keystone Bituminous Coal Ass'n v. DeBenedictis*,[31] the Court quoted the *Agins* version of the substantial advancement test and described it as an "integral part[] of our takings analysis."[32] The Court then discussed at length the legitimate public purposes served by the challenged statute.[33] In

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27. *Agins*, 447 U.S. at 260.

28. *See id.*; Jerold S. Kayden, *Land-Use Regulations, Rationality, and Judicial Review: The RSVP in the* Nollan *Invitation (Part I)*, 23 URB. LAW. 301, 314-15 (1991) (tracing "substantial advancement" test to *Euclid* due process test).

29. *Lingle*, 544 U.S. at 540.

30. *See* R.S. Radford, Of Course *a Land Use Regulation that Fails to Substantially Advance Legitimate State Interests Results in a Regulatory Taking*, 15 FORDHAM ENVTL. L. REV. 353, 358-69 (2004) (discussing origins of the substantial advancement test and suggesting that the Court knew it was borrowing due process language in creating a takings standard). Some have suggested that the substantial advancement test resulted neither from clumsiness nor from doctrinal conviction, but rather from a substantive advantage to including due process principles in takings law. *See* John D. Echeverria, Lingle*, Etc.: The U.S. Supreme Court's 2005 Takings Trilogy*, 35 ENVTL. L. REP. 10,577, 10,581 (2005);

> It seems far more likely, however, that something more substantive was going on. Ironically, it appears that both 'liberals' and 'conservatives' may, at different times, have found something to like in the notion that takings doctrine incorporated a due process-type means-ends analysis. If doctrinal coherence were the only objective in constitutional litigation, the *Agins* substantially advance test might never have arisen, but that plainly is not the case.

Daniel A. Jacobs, *Indigestion from Eating Crow: The Impact of* Lingle v. Chevron U.S.A., Inc. *on the Future of Regulatory Takings Doctrine*, 38 URB. LAW. 451, 465 (2006) ("The almost calculated ambiguity of the cases leading up to *Agins*, combined with the heavy reliance on substantive due process cases from the height of the *Lochner*-era, points to something more than Justice O'Connor's inadvertent historical confusion justification.").

31. 480 U.S. 470 (1987).

32. *Id.* at 485.

33. *See id.* at 485-93. The Court did more than just confirm that the regulation is a rational way to further some legitimate purpose, however. The Court suggested that the

Yee v. City of Escondido,[34] the Court refused to consider whether a mobile home park rent control ordinance was a regulatory taking because it was not included in the question on which the Court granted certiorari.[35] But the Court did consider whether the regulation caused a physical taking. Along the way, the Court pointed out that whether the regulation benefited only current mobile home owners was irrelevant to the physical taking claim, but it "might have some bearing on whether the ordinance causes a *regulatory* taking, as it may shed some light on whether there is a sufficient nexus between the effect of the ordinance and the objectives it is supposed to advance."[36] In *City of Monterey v. Del Monte Dunes at Monterey, Ltd.*,[37] the jury had been instructed to find a taking if the city's rejection of the plaintiff's development proposal did not substantially advance any of the legitimate purposes the city had offered in support of its decision.[38] The Court acknowledged that it had not "provided . . . a thorough explanation of the nature or applicability of the requirement that a regulation substantially advance legitimate public interests outside the context of required dedications or exactions," but noted that the instructions were "consistent with our previous general discussions of regulatory takings liability" and rejected the claim of error.[39] The Court thus indicated that, if the city's permit denial did not reasonably relate to the city's expressed purposes, it would be a taking.[40] Finally, in *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*,[41] the Court cited *Del Monte Dunes* and *Agins* in suggesting that, "apart from the District Court's finding that TRPA's actions represented a proportional response to a serious risk of harm to the lake, petitioners might have argued that the moratoria did not substantially advance a legitimate state in-

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importance of the public purpose is also a factor to weigh in deciding whether a regulation is a taking and concluded that the statute's important public purpose "leans heavily against finding a taking." *Id*. at 485.

34. 503 U.S. 519 (1992).

35. *Id*. at 535-38.

36. *Id*. at 530.

37. 526 U.S. 687 (1999).

38. *See id*. at 700.

39. *Id*. at 704-07.

40. *See* Radford, *supra* note 30, at 371-72, 376-79 (arguing that *Del Monte Dunes* "expressly reiterated the high court's traditional understanding that takings liability may properly be grounded on the failure of land-use regulations to substantially advance legitimate state interests"). *But see* John D. Echeverria, *Does a Regulation that Fails to Advance a Legitimate Governmental Interest Result in a Regulatory Taking?*, 29 ENVTL. L. 853, 874-75 (1999) (arguing that, even though *Del Monte Dunes* affirmed the jury's finding of a taking, five of the Justices joined in opinions indicating uncertainty about the substantial advancement test).

41. 535 U.S. 302 (2002).

terest."[42] The Court thus further hinted that the substantial advancement test required a proportional response to some public need.

This remark in *Tahoe-Sierra* reflects the evolution of the substantial advancement principle during the years following *Penn Central* and *Agins*. The suggestion that the means must be proportional evokes the Court's 1994 decision in *Dolan v. City of Tigard*.[43] In *Dolan*, the Court held that when the government conditions development permission on the surrender of some private property interest, the government "must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development."[44] That is, there must be rough proportionality between the means—the property being demanded as a condition to permission—and the end—the mitigation of unwanted impacts from the planned development for which permission is sought.[45] Of course, the property exacted from the owner is not actually taken from her because the owner does not have to surrender the property. The owner could instead refuse and simply abandon the planned development of the property for which permission was denied.[46] The Court in *Dolan* therefore reasoned, not that an unrelated or disproportionate exaction was a taking, but that it was an "unconstitutional condition":

> Under the well-settled doctrine of "unconstitutional conditions," the government may not require a person to give up a constitutional right—here the right to receive just compensation when property is taken for a public use—in exchange for a discretionary benefit conferred by the government where the benefit sought has little or no relationship to the property.[47]

This theory did not require the Court to consider whether some governmental act was a taking for failing to substantially advance a legitimate state interest. The Court simply had to decide that the government made surrender of the desired property interests (in this case, a portion of Dolan's property along a creek for a

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42. *Id*. at 334.
43. 512 U.S. 374 (1994).
44. *Id*. at 391.
45. *Id.*
46. *See, e.g.*, Alan Romero, *Two Constitutional Theories for Invalidating Extortionate Exactions*, 78 NEB. L. REV. 348, 352 (1999).
47. *Dolan*, 512 U.S. at 385.

greenbelt and public pathway) a condition to granting her discretionary development permission and that if the government would have required the owner to give up that property it would have been a taking. Obviously, the government would have had to pay just compensation if it had simply taken an easement over Dolan's property. [48] And just as obviously, the government required giving up the property without compensation in exchange for development permission. But the Court still had to consider whether the exaction was roughly proportional because, if it was, then the Court reasoned that the greater power to deny the permit altogether would include the lesser power to conditionally deny the permit if Dolan refused to grant the property interest that would at least roughly mitigate the harms caused by her proposed development. The Court did not explain this in *Dolan*, but accepted it without discussion from *Nollan v. California Coastal Commission*,[49] an earlier case invalidating an unrelated exaction.[50] The Court said that the unconstitutional conditions doctrine invalidates a condition only when "the benefit sought has little or no relationship to the property."[51] The Court thus logically was declaring rough proportionality to be an unconstitutional conditions standard, not a takings standard. However, the Court was not that clear about its logic and at some points in the opinion spoke as if rough proportionality were a refinement of the substantial advancement test of takings law. For example, the Court began its discussion of proportionality, "the required relationship to the projected impact of petitioner's proposed development," with an indirect reference to the substantial advancement test, citing *Nollan*'s quotation of *Penn Central* that "[a] use restriction may constitute a 'taking' if not reasonably necessary to the effectuation of a substantial government purpose."[52] But such passages are misleading because the Court's theory did not find the exaction to be a taking, but an unconstitutional condition.

Lingle points out that the rough proportionality test of *Dolan* is not a takings test at all, but is part of the unconstitutional conditions doctrine.[53] The Court in *Lingle* therefore said that its hold-

48. *See id*. at 384 ("Without question, had the city simply required petitioner to dedicate a strip of land along Fanno Creek for public use, rather than conditioning the grant of her permit to redevelop her property on such a dedication, a taking would have occurred.").

49. 483 U.S. 825, 834 (1987).

50. *See id.* at 836-37; Romero, *supra* note 46, at 355.

51. *Dolan*, 512 U.S. at 385.

52. *Id*. at 388 (citing *Nollan*, 483 U.S. at 834 (internal quotation marks omitted) (quoting Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 127 (1978)).

53. Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 547-48 (2005).

ing did not disturb the decisions in *Dolan* or *Nollan*.[54] However, this part of *Lingle* is a little misleading as well. Although *Dolan* certainly relied on the unconstitutional conditions theory, *Nollan* never referred to the doctrine and the opinion's reasoning does not correspond to unconstitutional conditions theory. In fact, *Nollan* clearly relied on takings law—and specifically the substantial advancement test.[55] The Court in *Nollan* began its central analysis by quoting the substantial advancement test from *Agins* and citing the *Penn Central* passage that a regulation may be a taking "if not reasonably necessary to the effectuation of a substantial government purpose."[56] The Court then noted that it had not previously explained much about the substantial advancement test:

> Our cases have not elaborated on the standards for determining what constitutes a "legitimate state interest" or what type of connection between the regulation and the state interest satisfies the requirement that the former "substantially advance" the latter. They have made clear, however, that a broad range of governmental purposes and regulations satisfies these requirements.[57]

The Court also insisted in a footnote that the substantial advancement test was not the same as the rationality test of substantive due process:

> [O]ur opinions do not establish that these standards are the same as those applied to due process or equal protection claims. To the contrary, our verbal formulations in the takings field have generally been quite different. We have required that the regulation "substantially advance" the "legitimate state interest" sought to be achieved, not that "the State '*could rationally have decided*' that the measure

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54. *Id*. at 548.

55. *See* Lawrence Berger, *Public Use, Substantive Due Process and Takings—An Integration*, 74 NEB. L. REV. 843, 867 (1995);

> In *Nollan v. California Coastal Commission*, the Court, in the first modern case to do so, actually struck down as a taking, rather than as a denial of substantive due process, a regulation that flunked a means/ends nexus review. Stated more precisely, the Court held to be a taking a regulation, wherein, though the ends sought by the regulators were legitimate, the means selected were not fairly directed toward those ends. (footnote omitted). *Id.*

56. *Nollan*, 483 U.S. at 834 (quoting *Penn Cent.*, 438 U.S. at 127).

57. *Id*. at 834-35 (footnote omitted).

> adopted might achieve the State's objective." . . . [T]here is no reason to believe (and the language of our cases gives some reason to disbelieve) that so long as the regulation of property is at issue the standards for takings challenges, due process challenges, and equal protection challenges are identical; any more than there is any reason to believe that so long as the regulation of speech is at issue the standards for due process challenges, equal protection challenges, and First Amendment challenges are identical.[58]

This was not mere dicta because the Court went on to apply the substantial advancement test to the regulation that prevented the Nollans from building a bigger house on their lot unless they dedicated to the public an easement along the beach. The Court assumed that the Coastal Commission could deny the Nollans the right to build a bigger house in order to preserve views of the beach and overcome psychological barriers to public use of the beach and acknowledged that this power to deny outright included the power to conditionally deny a permit unless the Nollans complied with conditions that helped mitigate those harms.[59] But "if the condition substituted for the prohibition utterly fails to further the end advanced as the justification for the prohibition . . . [that] unrelated condition alters the purpose [of the development ban] to one which, while it may be legitimate, is inadequate to sustain the ban."[60] The Court explained:

> [T]he lack of nexus between the condition and the original purpose of the building restriction converts that purpose to something other than what it was. The purpose then becomes, quite simply, the obtaining of an easement to serve some valid governmental purpose, but without payment of compensation. Whatever may be the outer limits of "legitimate state interests" in the takings and land-use context, this is not one of them. In short, unless the permit condition serves the same governmental purpose as the development ban, the building restriction is not

58. *Id*. at 834 n.3 (internal citations omitted).
59. *Id*. at 835-36.
60. *Id*. at 837.

> a valid regulation of land use but "an out-and-out plan of extortion."[61]

The "constitutional [im]propriety," then, was not that the Commission asked for a beachfront easement.[62] The impropriety was refusing to grant a permit to build a bigger house if the Nollans didn't agree. Because the condition did not mitigate the harms that a bigger house would cause, the purpose of the building restriction was "altered": now the only reason the Commission wouldn't give the Nollans a permit was that they would not give up an easement without compensation. Thus, the Commission's restriction on the Nollans' property did not serve any "legitimate" purpose, but only the purpose of extorting an easement from them.[63] So even though *Dolan* shifted to an unconstitutional conditions theory, *Nollan* clearly did apply the substantial advancement test to find the building restriction a taking, even though doing so did not require the Court to define the "outer limits" of "legitimate state interests."

Lucas v. South Carolina Coastal Council,[64] decided in 1992, also developed and clarified the substantial advancement test. In *Lucas*, the South Carolina Supreme Court had concluded that a law forbidding certain beachfront construction was not a taking or deprivation of substantive due process because the law merely prohibited activities akin to public nuisances.[65] Rejecting this conclusion, the U.S. Supreme Court explained the substantial advancement test as something different from the substantive due process rationality test.

The Court acknowledged that early takings cases "suggested that 'harmful or noxious uses' of property may be proscribed by government regulation without the requirement of compensation."[66] However, *Penn Central* later explained that

> [t]hese cases are better understood as resting not on any supposed "noxious" quality of the prohibited uses but rather on the ground that the restrictions were reasonably related to the implementation of a policy—not unlike historic preservation—expected to produce a widespread public benefit and applicable

61. *Id*.
62. *See* Romero, *supra* note 46, at 353.
63. *Id.* at 358-60.
64. 505 U.S. 1003 (1992).
65. *Id*. at 1022.
66. *Id*.

> to all similarly situated property.[67]

Finally, *Lucas* explained the harmful or noxious use principle as "simply the progenitor of our more contemporary statements that land-use regulation does not effect a taking if it substantially advance[s] legitimate state interests."[68] The Court thus suggested that preventing harmful use did not necessarily mean no compensation was due to the landowner. Rather, "'prevention of harmful use' was merely our early formulation of the police power justification necessary to sustain (without compensation) *any* regulatory diminution in value."[69] In short, a regulation must advance a legitimate public purpose, whether that purpose is seen as preventing harm or not, or else it will require compensation. But the *Penn Central* passage quoted in *Lucas* also indicates that, if the regulation "produce[s] a widespread public benefit and appli[es] to all similarly situated property," the regulation is not a taking.[70] Even though the substantial advancement test used substantive due process words, the Court in *Lucas* thus explained the test as the outgrowth of a takings principle. The principle, first expressed in "harmful or noxious use" language, is that the government must pay compensation for any regulation if it is not serving such a legitimate purpose—even though the Court explained that the distinction between preventing harms and conferring benefits is not a reliable way to identify sufficient regulatory purposes.[71] Furthermore, if a regulation advances a policy with widespread benefit and general applicability, then it does not require compensation.

C. Rejection of the Substantial Advancement Test

The Supreme Court in *Lingle* disregarded much of the development of the substantial advancement test. The Court's opinion begins by hinting that the substantial advancement test was never seriously considered by the Court and that it became part of takings law by accident:

> On occasion, a would-be doctrinal rule or test finds its way into our case law through simple repetition of a phrase—however fortuitously coined. A quarter

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67. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 133 n.30 (1978).
68. *Lucas*, 505 U.S. at 1023-24 (alteration in original) (internal quotation marks omitted).
69. *Id.* at 1026.
70. *Penn Central*, 438 U.S. at 133 n.30.
71. *Lucas*, 505 U.S. at 1024-26.

> century ago, in *Agins v. City of Tiburon*, the Court declared that government regulation of private property "effects a taking if [such regulation] does not substantially advance legitimate state interests . . . ." Through reiteration in a half dozen or so decisions since *Agins*, this language has been ensconced in our Fifth Amendment takings jurisprudence.[72]

The Court also claimed that the *Lingle* case was the Court's "first opportunity to consider its validity as a freestanding takings test."[73] This assertion overlooks the debate in *Nollan* over whether the substantial advancement test is equivalent to the substantive due process rationality test, a debate which was necessary to the Court's reasoning that the land-use restriction was a taking because the unrelated condition revealed an extortionate purpose.[74] The assertion also minimizes the Court's efforts in other cases to understand and explain the connection between due process rationality and takings.[75]

Regardless of what it said before, the Court in *Lingle* held that the substantial advancement test "prescribes an inquiry in the nature of a due process, not a takings, test."[76] The substantial advancement test, the Court explained,

> suggests a means-ends test: It asks, in essence, whether a regulation of private property is *effective* in achieving some legitimate public purpose. An inquiry of this nature has some logic in the context of a due process challenge, for a regulation that fails to serve any legitimate governmental objective may be so arbitrary or irrational that it runs afoul of the Due Process Clause. But such a test is not a valid

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72. Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 531-32 (2005) (alteration and ellipses in original) (citations omitted).

73. *Id*. at 540.

74. *See supra* notes 56-63 and accompanying text.

75. *See* Dreher, *supra* note 20, at 373:

> At one level, therefore, *Lingle* can be seen as simply separating distinct strands of constitutional doctrine that had been mistakenly woven together, for reasons that now appear insubstantial or even accidental, twenty-five years ago in *Agins*. The full story of the Court's century-long dalliance in takings law with due process principles, however, and *Lingle*'s significance for that debate, are considerably more complex.

76. *Lingle*, 544 U.S. at 540.

> method of discerning whether private property has been "taken" for purposes of the Fifth Amendment.[77]

The Court reasoned that all the other tests of regulatory takings explore "the magnitude or character of the burden" on the property owner or the distribution of such burdens among property owners.[78] The magnitude or character of the burden determines whether the regulation's "effects are functionally comparable to government appropriation or invasion of private property."[79] The distribution of the burden is also relevant because the Takings Clause is meant "to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole."[80] But the substantial advancement test "tells us nothing about the actual burden imposed on property rights, or how that burden is allocated."[81] The test ensures that the regulation is legitimate and useful, but

> [t]he owner of a property subject to a regulation that *effectively* serves a legitimate state interest may be just as singled out and just as burdened as the owner of a property subject to an *ineffective* regulation. It would make little sense to say that the second owner has suffered a taking while the first has not. Likewise, an ineffective regulation may not significantly burden property rights at all, and it may distribute any burden broadly and evenly among property owners. The notion that such a regulation nevertheless "takes" private property for public use merely by virtue of its ineffectiveness or foolishness is untenable.[82]

Furthermore, the Court maintained that "the 'substantially advances' inquiry probes the regulation's underlying validity," rather than its "effect on private property."[83] "[T]he Takings Clause presupposes that the government has acted in pursuit of a valid public purpose."[84] So if a regulation did not substantially

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77. *Id*. at 542 (citation omitted).
78. *Id* (emphasis omitted).
79. *Id*.
80. Armstrong v. United States, 364 U.S. 40, 49 (1960); *see also* Palazzolo v. Rhode Island, 533 U.S. 606, 617-18 (2001) (quoting *Armstrong* and describing this as "the purpose of the Takings Clause").
81. *Lingle*, 544 U.S. at 543.
82. *Id*.
83. *Id*.
84. *Id*.

advance a legitimate state interest, then the regulation would simply be "impermissible" because it did not satisfy the public use requirement of the Takings Clause or because it did not satisfy the requirements of substantive due process. That would be "the end of the inquiry" because "[n]o amount of compensation can authorize such action."[85] The Court thus seemed to assume that the substantial advancement test was the same as the public use or substantive due process tests, which was the question that the Court had begun to debate in *Nollan*.[86] The Court in *Lingle* did not address the possibility that a regulation might be for public use under the Takings Clause and might not be so arbitrary and irrational that it denied substantive due process and yet still required compensation under a substantial advancement standard that was different from those broader, more deferential constitutional requirements.

As the Court understood the substantial advancement test, the test did not help identify unfair burdens on owners but instead evaluated the permissibility of the government's action rather than the compensability, thus improperly duplicating the public use requirement and the substantive due process rationality test. Therefore, it is no wonder that *Lingle* concluded "that the 'substantially advances' formula is not a valid takings test, and . . . has no proper place in our takings jurisprudence."[87]

III. REQUIRING JUST COMPENSATION FOR ENFORCING IRRATIONAL REGULATIONS

Even if the substantial advancement test was not a valid takings test but merely a duplication of substantive due process, that does not necessarily mean that it has no place in takings jurisprudence. An arbitrary or irrational regulation could also take property from an owner and therefore require compensation, even though the regulation should never have been enforced. In such situations, there is no need for an independent takings test like the substantial advancement test. But in this Part I argue that a regulation that violates substantive due process requires compensation when it is enforced against the owner. The means-ends test of substantive due process therefore is still relevant to takings law, even though *Lingle* says the Takings Clause itself does not create a duplicate means-ends test.

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85. *Id.*

86. *See* Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 834 n.3 (1987); *id.* at 843 n.1 (Brennan, J., dissenting).

87. *Lingle*, 544 U.S. at 548.

A. A Regulation May Both Deny Substantive Due Process and Require Compensation

As the Court and others have pointed out, if a regulation does not rationally advance a permissible interest—if it denies substantive due process—then the regulation is simply invalid. Even if the government pays compensation, the regulation exceeds its power and cannot be enforced.[88] So it might seem that an invalid regulation under substantive due process would never have the chance to "take" an owner's property.

But when a regulation is enacted, the government treats it as valid even if it is not. It may be a long time before someone challenges the regulation and a court declares that it denies substantive due process. In the meantime, the regulation may in fact be "taking" people's property. That is, the regulation may be preventing certain uses of property and may be impairing the value of property.

Violating due process should not immunize a regulation from the just compensation requirement. An invalid regulation could take property just as much as a valid regulation could. Imagine two regulations. The first regulation declares that certain property owners cannot develop or even use their property in any way, perhaps because the property is located in a sensitive coastal area. The government has chosen a rational way to advance a valid public purpose. The regulation therefore satisfies substantive due process. But this rational regulation nevertheless denies the owner all economically viable use of her land, and therefore the government must pay just compensation under the Takings Clause. The second regulation also declares that certain property owners cannot develop or use their property, but this time for no good reason at all—the regulation arbitrarily says prime-numbered subdivision lots cannot be developed or occupied. The second regulation is not a rational way to advance any valid public purpose and denies substantive due process. It also denies the owner all economically viable use of her land just as much as the first regulation does.

When a regulated owner eventually challenges the first regulation, the owner will win and the government will have two choices:

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88. *See, e.g.*, *id*. at 543 ("Conversely, if a government action is found to be impermissible—for instance because it fails to meet the 'public use' requirement or is so arbitrary as to violate due process—that is the end of the inquiry. No amount of compensation can authorize such action."); William B. Stoebuck, *Police Power, Takings, and Due Process*, 37 WASH. & LEE L. REV. 1057, 1082 (1980) ("[I]f the regulatory measure is found void it will be unnecessary, indeed logically impossible, to consider whether it amounts to a taking.").

continue to enforce the regulation and pay permanent compensation or repeal (or acceptably modify) the regulation and pay temporary compensation for the period during which the regulation took the property. The Supreme Court settled this point in *First English Evangelical Lutheran Church of Glendale v. County of Los Angeles*.[89] The Court explained:

> Once a court determines that a taking has occurred, the government retains the whole range of options already available—amendment of the regulation, withdrawal of the invalidated regulation, or exercise of eminent domain. . . . [W]here the government's activities have already worked a taking of all use of property, no subsequent action by the government can relieve it of the duty to provide compensation for the period during which the taking was effective.[90]

Of course, the Court also suggested that sometimes temporary compensation will not be required,[91] but that is beside the point right now. Whatever circumstances will require compensation for a temporary regulatory taking—and there surely are such circumstances—assume those circumstances are present in this case.

When a regulated owner eventually challenges the second regulation, the second owner will also win. But this time, the government will not have the choice to continue to enforce the regulation because the regulation exceeds the police power and is invalid.[92] But there is no reason why an involuntary repeal of the invalid regulation should change the requirement of compensation for the temporary taking that preceded repeal. Whether the government had the right to do so or not, the government did in fact restrict use of the land in a way that made it economically useless. That regulation actually deprived the owner of the same value of which the first owner was deprived for as long as the regulation

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89. 482 U.S. 304 (1987).

90. *Id*. at 321; *see also* Berger, *supra* note 55, at 861-62 ("[W]here a regulation is held to be a taking, the government has the option of continuing to enforce it permanently upon payment of damages or to acquiesce in its being voided. This is a perfectly appropriate result. If the regulation has a legitimate public purpose, the government should be allowed to continue it in effect . . . .") (footnote omitted).

91. *See First English Evangelical*, 482 U.S. at 321 ("We limit our holding to the facts presented, and of course do not deal with the quite different questions that would arise in the case of normal delays in obtaining building permits, changes in zoning ordinances, variances, and the like which are not before us.").

92. *See, e.g.*, Berger, *supra* note 55, at 869-70 (arguing that if a land use regulation is for no legitimate purpose, "the regulation should be voided as a violation of substantive due process, and . . . the government should not have the option of enforcing the regulation even upon payment of full compensation").

remained in effect. Both owners suffered the same loss, and that loss qualifies as a taking.

Because the Takings Clause does not limit the police power, the Court has reasoned that the Clause applies only to legitimate exercises of the police power. The Court in *Lingle* stressed that the Takings Clause does not prevent any "governmental interference with property rights," but simply requires the government to pay compensation when "otherwise proper interference amount[s] to a taking."[93] As Justice Kennedy put it earlier,

> the Takings Clause . . . has not been understood to be a substantive or absolute limit on the government's power to act. The Clause operates as a conditional limitation, permitting the government to do what it wants so long as it pays the charge. The Clause presupposes what the government intends to do is otherwise constitutional . . . .[94]

But that does not mean that the Takings Clause never requires compensation for otherwise unconstitutional acts. It just means that the Takings Clause asks a different question than other constitutional provisions: rather than asking whether the government acted validly or invalidly, it asks whether the government took property. Both valid and invalid actions can take away a person's property. The government does not have the right to enforce irrational regulations, but if the government does so anyway, the requirement of just compensation is "self-executing" and the government should have to pay after the fact.[95]

Some have argued that the Takings Clause itself prevents compensation for regulations that deny substantive due process. The Takings Clause says property may not be taken for "public use" without just compensation. The Court has construed the public use clause not to merely describe compensable actions, but to actually restrict the eminent domain power—to prohibit exercising eminent domain for something other than a legitimate public purpose.[96] This suggests the Takings Clause does more than just

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93. *Lingle*, 544 U.S. at 537 (quoting *First English Evangelical*, 482 U.S. at 315).

94. Eastern Enters. v. Apfel, 524 U.S. 498, 545 (1998) (Kennedy, J., concurring in the judgment and dissenting in part).

95. *First English Evangelical*, 482 U.S. at 315 ("We have recognized that a landowner is entitled to bring an action in inverse condemnation as a result of the self-executing character of the constitutional provision with respect to compensation . . . ." (internal quotation marks omitted) (citation omitted)).

96. *See, e.g.*, Kelo v. City of New London, 545 U.S. 469, 480 (2005) ("The disposition of this case therefore turns on the question whether the City's development plan serves a 'public purpose.' "); Berger, *supra* note 55, at 844 ("[The] obvious purpose [of the public use

"presuppose" a valid governmental action: it actually declares certain actions—takings that are not "for public use"—invalid. The Court has said that "for public use" means the same thing as substantive due process: the regulation is a rational way to advance a valid public purpose.[97] Therefore, the argument goes, the Takings Clause only requires just compensation for regulations that are for a public use and thus are also valid under substantive due process. Irrational regulations are simply void and never invoke the requirement of just compensation.[98]

But that would be a strange rule: the government must pay compensation if it takes for a legitimate purpose, but the government need not pay anything if it takes for an illegitimate purpose.[99] Even if the public use clause limits the eminent domain power, that doesn't mean the public use clause also limits the obligation to pay just compensation if a taking has actually occurred. Sure, the government does not have the right to take property for illegitimate purposes. As presently understood, the public use requirement and the substantive due process doctrine both say that. But if the government does so anyway, it does not change the fact

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clause] is to prevent government from seizing, even with compensation, the property of one person merely to benefit another private person.").

97. *See Kelo*, 545 U.S. at 480 ("Without exception, our cases have defined [public use] broadly, reflecting our longstanding policy of deference to legislative judgments in this field."); Haw. Housing Auth. v. Midkiff, 467 U.S. 229, 240 (1984) ("The 'public use' requirement is thus coterminous with the scope of a sovereign's police powers."); Kayden, *supra* note 28, at 316.

98. *See, e.g.*, Dreher, *supra* note 20, at 388 ("Thus, a conclusion that a government action does not serve a valid public purpose would seem to *preclude* a finding of a taking, rather than support it."); Echeverria, *supra* note 40, at 876 (stating argument that "a valid government action is a prerequisite for a finding of a taking and, therefore, there can be no taking if the action fails means-ends review, regardless of the action's impact on the property owner."); Romero, *supra* note 46, at 364-65 ("Therefore, if the takings and due process standards are the same, then any regulation that does not substantially advance a legitimate state interest is also not for a public use, and cannot be a taking at all. It is simply invalid under the Due Process Clause.").

99. *See* Cole v. City of La Grange, 113 U.S. 1, 7-8 (1885):

> The express provisions of the constitution of Missouri tend to the same conclusion. It begins with a declaration of rights, the sixteenth article of which declares that 'no private property ought to be taken or applied to public use without just compensation.' This clearly presupposes that private property cannot be taken for private use. Otherwise, as it makes no provision for compensation except when the use is public, it would permit private property to be taken or appropriated for private use without any compensation whatever. *Id.* (citations omitted);

John A. Humbach, *Constitutional Limits on the Power to Take Private Property: Public Purpose and Public Use*, 66 OR. L. REV. 547, 554 (1988):

> [T]he words 'for public use' may be read as a proviso under which takings for private use are simply placed outside the subject matter of the just compensation clause. This reading would admit (though not *compel*) the possibility that the government could take for private use without paying at all—at least so far as the just compensation clause is concerned. *Id.*

that the government has taken property without compensation. In that case, the government should not have the choice to continue enforcing the regulation, but if the regulation has already effected a taking, then compensation should be required. In other words, the public use requirement might forbid takings for private or otherwise illegitimate uses, but it does not mean that no compensation is required if the government nevertheless takes property for private or otherwise illegitimate uses in spite of that prohibition. Contrary to the Court's suggestion in *Lingle*, awarding just compensation does not mean that the Court "authorize[s] such action."[100] Awarding compensation does nothing more than remedy an unfair burden on a property owner. Other provisions, such as the public use clause and substantive due process, determine whether the action is authorized.

The Just Compensation Clause surely is meant to require compensation whenever the government actually takes away someone's property, and it would be perverse if the government could defend against a claim for compensation by saying it took the person's property for an illegitimate reason.[101] But even if the public use clause implies that the Fifth Amendment itself requires the government to pay compensation only when it takes property for legitimate purposes, neither the public use clause nor any other part of the Fifth Amendment suggests the false inference that the government can therefore take for non-public uses without paying compensation. As Justice Thomas explained in his dissent in *Kelo v. City of New London*:

> Alternatively, the [Public Use] Clause could distinguish those takings that require compensation from those that do not. That interpretation, however, "would permit private property to be taken or appropriated for private use without any compensation whatever." In other words, the Clause would require the government to compensate for takings done "for public use," leaving it free to take property for purely private uses without the payment of compensation. This would contradict a bedrock principle

100. Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 543 (2005).

101. John Humbach argues that the Just Compensation Clause does not require compensation for such takings, but the Due Process Clause does. *See* Humbach, *supra* note 99, at 587 ("[A] reassignment by the state of private property rights may be reasonably necessary in light of the public interest and yet still be impermissible as a matter of due process, unless provision is made to compensate those whose rights are taken.").

> well established by the time of the founding: that all takings required the payment of compensation.[102]

If the government has actually taken property, the principle of the Takings Clause requires compensation regardless of whether the government had a permissible reason for taking it.

B. A Regulation May Require Compensation Because It Violates Substantive Due Process

It might be a rare case in which an irrational regulation is enforced so long and is so burdensome that it would amount to a taking. But, rare or not, compensation should be required in such a case. So it is important to at least recognize that invalidity under substantive due process should not prevent claims of just compensation. But so far I have only talked about irrational regulations that take property because of the extent of the burden they impose, not merely because of their irrationality. That's enough to make the point that an invalid regulation under substantive due process may also be a taking.[103]

But the bigger question is whether a regulation might be a taking simply because it is not a rational way to advance some valid public purpose, regardless of the burden it imposes on the owner. There is a good argument that a regulation might be a taking simply because of irrationality, but the Court's opinion in *Lingle* did not address this argument. However, the Court itself suggested the argument earlier in *Lucas*. As discussed above, the *Lucas* opinion connected the contemporary substantial advancement test to the early cases that allowed the government to prevent harmful land uses without compensation.[104] At the end of that discussion,

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102. 545 U.S. 469, 507-08 (2005) (Thomas, J., dissenting) (citations omitted). An owner may also have a claim for damages that result from the deprivation of substantive due process, under § 1983 of the Civil Rights Act. *See, e.g.*, L. Kinvin Wroth, Lingle *and* Kelo*: The Accidental Tourist in Canada and NAFTA-Land*, 7 VT. J. ENVTL. L. 62 (2005-2006):

> In sum, *Lingle* and *Kelo* mean that, if governmental action is not warranted by the police power because it does not satisfy the due process rational relationship test, it is not a public use and the government cannot undertake the action even if it compensates the affected property owner. The owner's remedy in such a case may be an action for violation of the Due Process Clause under Section 1983 of the Civil Rights Act.

But the Civil Right Acts certainly did not change the meaning or effect of the Fifth Amendment, which requires compensation for any actual taking.

103. *Cf.* Echeverria, *supra* note 40, at 876 (stating the argument that even if "an invalid or arbitrary government action could not be held to be a taking on that basis, [it] might nonetheless be found to be a taking because it has deprived the owner of all economic use of the property").

104. *See* Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1020-26 (1992); *see also supra*

the *Lucas* Court said that "'prevention of harmful use' was merely our early formulation of the police power justification necessary to sustain (without compensation) *any* regulatory diminution in value."[105] The Court thus suggested that "*any* regulatory diminution in value" would require compensation unless it had a "police power justification."[106]

The essential premise of this argument is that any regulatory action taking away any property right would be a taking if there was not a public justification that outweighed the private owner's interests. Unless a land use regulation merely duplicates the "restrictions that background principles of the State's law of property and nuisance already place upon land ownership,"[107] a regulation will inevitably deprive a landowner of some property right she would otherwise have had. The government has broad powers within the boundaries of substantive due process to adopt such regulations. But that is because this police power, when exercised, "override[s] . . . the substantive protections of the Constitution."[108] It is not because the mere existence of the police power simply eliminates all other rights that might, at some point, conflict with the police power.[109] The owner retains all common law property rights that have not been constitutionally restricted.

Denying any of those property rights does "take" property from the owner, but sometimes does not require compensation because the police power justifies the deprivation. Justice Holmes's opinion for the Court in *Pennsylvania Coal Co. v. Mahon*[110] reflects this

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notes 64-71 and accompanying text.

105. *Lucas*, 505 U.S. at 1026.

106. *See* Dreher, *supra* note 20, at 385 ("The Court [in *Lucas*] treated its early due process cases not as establishing a broad categorical exemption from takings liability, but rather as reflecting only the police power predicate for government action to affect private property at all.").

107. *Lucas*, 505 U.S. at 1029.

108. Richard A. Epstein, *The Supreme Court, 1987 Term—Foreword: Unconstitutional Conditions, State Power, and the Limits of Consent*, 102 HARV. L. REV. 4, 59 (1988); *see also* Romero, *supra* note 46, at 364.

109. *See* Epstein, *supra* note 108, at 60 ("[E]ven this broad construction of the police power does not give the state ordinary ownership rights over the property that it may restrict or regulate."). The Supreme Court's 1798 decision in *Calder v. Bull* seems to acknowledge that any deprivation of a property right would ordinarily require just compensation. Justice Chase wrote:

> It is not to be presumed, that the federal or state legislatures will pass laws to deprive citizens of *rights* vested in them by *existing* laws; unless for the benefit of the whole community; and on making full satisfaction. The restraint against making any *ex post facto* laws was not considered, by the framers of the constitution, as extending to prohibit the depriving a citizen even of a *vested right to property*; or the provision, 'that *private* property should not be taken for PUBLIC use, without just compensation,' was unnecessary. 3 U.S, 386, 394 (1798).

110. 260 U.S. 393 (1922).

perspective. Justice Holmes described the contract right to mine coal without maintaining surface support as a very valuable estate in land.[111] The regulation limiting the right to mine coal did not completely prohibit coal mining. Still, the Court said that this property interest was protected by the Just Compensation Clause of the Fifth Amendment. But the "seemingly absolute protection" of property rights—requiring compensation whenever property is taken—is "qualified by the police power."[112] The danger is that "the natural tendency of human nature is to extend the qualification more and more until at last private property disappears."[113] So the Court did not say that the Just Compensation Clause does not protect owners at all from less burdensome regulatory deprivations, but rather that the protection is "qualified" by the police power. The Court explained that the police power qualifies the just compensation requirement because, practically, "[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law."[114] Not only is this qualification a practical necessity, it is "an implied limitation" on property rights—to some extent, they are subject to and "must yield to the police power."[115] But this implied limitation does not mean that any action pursuant to the police power justifies deprivation of property without compensation: the implied police power limitation "must have its limits or the contract and due process clauses are gone."[116]

Ordinarily, as in *Pennsylvania Coal*, we assume that the government is legitimately exercising the police power when it regu-

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111. *Id*. at 414.

112. *Id*. at 415.

113. *Id*.

114. *Id*. at 413.

115. *Id*.; *see also* Mark W. Cordes, *Takings Jurisprudence as Three-Tiered Review*, 20 J. NAT. RES. & ENVTL. L. 1, 44-45 (2005-2006) (explaining that regulatory burdens are generally not unfair in part because "our legal system has long recognized that private property ownership is subject to a broader public interest" and therefore "this accommodation between private and public interests is an inherent limitation in the nature of private property to begin with, rather than a deprivation of interests").

116. Penn. Coal Co. v. Mahon, 260 U.S. 393, 413 (1922). The Court does not mention the Takings Clause in this sentence, and some might think this discussion does not apply to the Takings Clause. *See, e.g.*, Glen E. Summers, Comment, *Private Property Without* Lochner*: Toward a Takings Jurisprudence Uncorrupted by Substantive Due Process*, 142 U. PA. L. REV. 837, 848 (1993) ("What some observers have failed to understand, however, is that these comments were made in the context of a general discussion of the validity of the Kohler Act, not under the Takings Clause, but under the Due Process and Contract Clauses."). However, the opinion immediately goes on to say that the extent of the diminution is one factor in determining the limits on the police power, and when that diminution "reaches a certain magnitude, in most if not in all cases there must be an exercise of eminent domain and compensation to sustain the act." *Penn. Coal*, 260 U.S. at 413. So the Court clearly meant to say that the police power can limit property use to some extent, but at some point it goes too far and just compensation is required.

lates land use—that is, that the government rationally thinks the regulation will serve some public interest. As Justice Holmes said, "[w]e assume, of course, that the statute was passed upon the conviction that an exigency existed that would warrant it, and we assume that an exigency exists that would warrant the exercise of eminent domain."[117] In such cases, "the question at bottom is upon whom the loss of the changes desired should fall."[118] "One fact for consideration" in deciding whether the loss should fall on the individual owner is "the extent of the diminution."[119]

But if a court were not justified in assuming that a regulation was "passed upon the conviction that an exigency existed that would warrant it," there is an additional objection to the regulation.[120] Regardless of the extent of the diminution, if the police power has not been exercised in a way that qualifies the owner's property rights, then the "seemingly absolute protection" of the Just Compensation Clause remains.[121] The government does not have to pay for every change in the law because property rights are implicitly qualified by the police power. In the words of *Lucas*, "*any* regulatory diminution in value" that is not accompanied by compensation must be justified by the police power.[122] Private property rights, whatever their magnitude, can be taken only if the government pays compensation or if the police power—the power to adopt rational means to accomplish legitimate public ends—qualifies or overrides the private property interest.

Deciding when the police power qualifies or overrides private property interests is obviously difficult. But as Justice Holmes indicated, there must be a limit to the implied police power qualification of property rights or else rational regulations would never take property.[123] That limit may depend both on the extent of the individual burden and the character of the public interest. But for this argument, it is enough to say that there is a limit and it does not matter that courts may change those limits over time or that the accepted scope of the police power may change over time. If a land use regulation is not an exercise of the police power at all—if it is not a valid exercise of the police power because it is not a rational way to accomplish a permissible public purpose—then the regulation is not in any degree a manifestation of a power that

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117. *Penn. Coal*, 260 U.S. at 416.
118. *Id.*
119. *Id.* at 413.
120. *Id.* at 416.
121. *See id.* at 415.
122. Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1026 (1992); *see also supra* note 105 and accompanying text.
123. *Penn. Coal*, 260 U.S. at 413.

qualifies property rights or overrides the Just Compensation Clause. The Just Compensation Clause thus still requires compensation for the property deprivation.

This argument does not advocate a "stand-alone regulatory takings test," which the Court rejected in *Lingle*.[124] The means-ends test comes from the Due Process Clause. The argument is simply that government must pay compensation for a temporary taking when a land use regulation violates substantive due process but nevertheless is somehow applied against a property owner. This would certainly mean greater risk of loss for governments regulating land use because an irrational regulation could result in compensation, not just invalidation. But that risk is not significantly different from the risk of having to pay compensation because the regulation imposes too great a burden or results in an unfairly distributed burden. The government can be expected to understand the requirements of substantive due process and avoid violations, just as it is expected to understand and avoid uncompensated regulatory takings.

This argument also does not justify closer judicial scrutiny of means and ends. The Court in *Lingle* feared that the substantial advancement test could "be read to demand heightened means-ends review of virtually any regulation of private property."[125] The Ninth Circuit's decision in the case had certainly required heightened review, concluding that the substantial advancement test requires a regulation to "bear[] a 'reasonable relationship' to that interest," indicating "an intermediate level of review, more stringent than the rational basis test used in the due process context."[126] But my argument here is that, despite the Court's rejection of a stand-alone takings test, a substantive due process violation itself may require compensation under the Takings Clause. This argument therefore would not permit more intrusive judicial scrutiny of the government's judgments as a separate means-ends test

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124. Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 540 (2005).

125. *Id*. at 544. It does not seem the federal courts had used the test "to substitute their predictive judgments for those of elected legislatures and expert agencies." *Id.* Very few federal courts ever held that a land use regulation failed to substantially advance a legitimate state interest. *See* Jacobs, *supra* note 30, at 479-81:

> Other than in *Agins* itself, there were only a few cases in the federal and state courts that had the chance to apply the test, and those that did rarely find a challenged law failed to substantially advance a legitimate state interest. Therefore, although the federal applications of the *Agins* test are now void of all precedential value . . . , the failure of the cases to utilize the test to place limits on government regulation made the voiding a mere formality (footnote omitted).

126. Chevron USA, Inc. v. Bronster, 363 F.3d 846, 853-54 (9th Cir. 2004); *see also* Radford, *supra* note 30, at 382-88 (arguing that substantial advancement test requires heightened scrutiny).

might.[127] The risk of an innocent mistake resulting in compensation therefore would be small because of courts' liberal deference to legislative judgments about whether regulations are rational means to accomplish permissible purposes under substantive due process doctrine.[128]

IV. UNIQUE CONSIDERATIONS OF MEANS AND ENDS IN TAKINGS LAW

Even if just compensation were not required simply because a regulation took recognized property rights without a police power justification, *Lingle* itself affirms principles of takings law to which regulatory means and ends may still be relevant. The Court's rejection of the substantial advancement test should not be taken as rejection of such considerations of means and ends in takings law.

The *Lingle* opinion repeated that the Takings Clause is meant to compensate property owners when a regulation would otherwise "forc[e] some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole."[129] The Court suggested that the public should bear the burden if the individual burden is too great or the regulation disproportionally burdens some owners. The substantial advancement test is not a valid takings test because it

> reveals nothing about the *magnitude or character of the burden* a particular regulation imposes upon private property rights. Nor does it provide any information about how any regulatory burden is *distributed* among property owners. In consequence, this test does not help to identify those regulations whose

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127. *See* Dreher, *supra* note 20, at 402 ("But the 'substantially advances' formulation offered conservatives much more: an opportunity to challenge *directly* the economic underpinnings of liberal government regulation, free from the suffocating deference to legislative judgment that would otherwise apply if such a challenge were mounted under due process."); Echeverria, *supra* note 40, at 878 ("Third, the label might matter if, in affirming the means-ends test as part of takings analysis, the Supreme Court were to formulate the test to be more demanding of government than the modern, deferential due process means-ends test.").

128. *See, e.g.*, Zahn v. Bd. of Public Works, 274 U.S. 325, 328 (1927):

> [I]t is impossible for us to say that their conclusion in that respect was clearly arbitrary and unreasonable. The most that can be said is that whether that determination was an unreasonable, arbitrary, or unequal exercise of power is fairly debatable. In such circumstances, the settled rule of this court is that it will not substitute its judgment for that of the legislative body charged with the primary duty and responsibility of determining the question.

129. Armstrong v. United States, 364 U.S. 40, 49 (1960), *quoted in* Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 543 (2005).

> effects are functionally comparable to government appropriation or invasion of private property . . . .[130]

The objective is to determine "when justice might require that the burden be spread among taxpayers through the payment of compensation," so a takings test must reveal something "about the actual burden imposed on property rights, or how that burden is allocated."[131]

The Court said that the substantial advancement test tells us nothing about the extent or distribution of the burden. But both the nature of the regulatory purpose and the means of accomplishing that purpose may tell us something about the distribution of the burden. The substantial advancement test could have matured into a takings principle, distinct from substantive due process, that considered the ways in which ends and means might affect the fairness of regulatory burdens. But even if we do not use the substantial advancement terminology anymore because of its genealogy and confusing similarity to substantive due process formulations, we still need some words that will direct attention to the ways in which regulatory means and ends are relevant to takings claims.

The courts could use words from *Penn Central* without making up new words. The Supreme Court in *Lingle* once again reaffirmed that most "takings challenges are governed by the standards set forth in *Penn Central*."[132] The *Penn Central* "factors that have particular significance" include "the character of the governmental action."[133] This "character" factor could be the verbal home for appropriate considerations of means and ends in takings cases.

"Character" is a broad term inviting many relevant considerations.[134] In fact, the Court's takings opinions referring to the character factor suggest that any characteristic relating to the fairness of the regulatory burden is relevant to the takings decision. *Penn Central* did not elaborate much on what aspects of the "character of the governmental action" might be relevant to a regulatory takings challenge, but the Court gave some hint in the next sentence of the opinion: "A 'taking' may more readily be found when the interference with property can be characterized as a physical inva-

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130. *Lingle*, 544 U.S. at 542.

131. *Id*. at 543.

132. *Id*. at 538.

133. Penn Central Transp. Co. v. City of New York, 438 U.S. 104, 124 (1978).

134. *See* R.S. Radford, *Just a Flesh Wound? The Impact of* Lingle v. Chevron *on Regulatory Takings Law*, 38 URB. LAW. 437, 448 (2006) ("What considerations might reasonably be included in the 'character' calculus remains as great a mystery today as the day *Penn Central* was drafted.").

sion by government than when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good."[135] This is not merely another way of determining the magnitude of the regulation, because a physical invasion does not necessarily impose a greater burden than a regulation that limits the owner's use of the property.[136] Rather, as the Court later declared, a regulation authorizing a "permanent physical occupation of property " is a taking "without regard to whether the action achieves an important public benefit or has only minimal economic impact on the owner."[137] The Court reasoned that such a regulation "is perhaps the most serious form of invasion of an owner's property interests" because it interferes with the rights to possess, use, and dispose of property and requires suffering a stranger to invade and occupy the land without any "control over the timing, extent, or nature of the invasion."[138]

This aspect of the regulatory "character" thus concerns the qualitative burden on the owner—it hurts people more to invade their property than to restrict their use of the property. But there are other regulatory characteristics that might be relevant to the qualitative burden. Elsewhere in the *Penn Central* opinion, the Court stated that "government actions that may be characterized as acquisitions of resources to permit or facilitate uniquely public functions have often been held to constitute 'takings.'"[139] Again, such actions do not necessarily impose a greater regulatory burden. They are more likely to be takings because they are more likely to impose unfairly distributed burdens. The government in such cases is clearly not just regulating property to harmonize conflicting land uses, but is making some few owners "bear public burdens which, in all fairness and justice, should be borne by the public as a whole."[140] The government generally has to pay the cost of resources necessary to perform its uniquely public functions; it is not fair to make a few owners provide those resources by regulating them.[141]

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135. *Id*. (citation omitted).

136. *See* Steven J. Eagle, *"Character" as "Worthiness": A New Meaning for* Penn Central*'s Third Test?*, 27 ZONING & PLANNING L. REP. 2 (2004) ("However, trivial physical invasions, such as the roof-mounted bread-box sized cable TV box in *Loretto* that was intended to facilitate service to apartment house tenants, often benefit third parties and impose far lighter burdens on owners than severe restrictions on their use of land.").

137. Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 434-35 (1982).

138. *Id*. at 435-36.

139. *Penn Central*, 438 U.S. at 128.

140. Armstrong v. United States, 364 U.S. 40, 49 (1960).

141. "Scholars who have addressed the nature of *Penn Central*'s 'character' prong are broadly in agreement that the test must somehow relate to the considerations of *fairness* that have animated much of the Court's recent takings jurisprudence." Radford, *supra* note

On the other hand, *Penn Central* indicated that a regulation is less likely to be a taking if it is part of "some public program adjusting the benefits and burdens of economic life to promote the common good."[142] This characteristic of a regulation likewise tells us only about its character or quality, not about the magnitude of the burden. Of course, any regulation adjusts benefits and burdens in some way, even if it makes some complete losers. But regulations that adjust benefits and burdens to promote the common good are less likely to unfairly burden individual owners because they are part of a wide-scale effort to benefit the whole society and thus to benefit all individual owners. Individuals will sometimes lose, but will also sometimes win. *Pennsylvania Coal* suggested that, when a particular regulation both burdens and benefits an owner by making others subject to the same restrictions, this "average reciprocity of advantage" justifies the law without requiring compensation for the regulatory burden.[143]

In *Lucas*, the Court expressly connected the "adjusting benefits and burdens" phrase from the character factor of *Penn Central* with the "reciprocity of advantage" justification from *Pennsylvania Coal*. The Court explained:

> Surely, at least, in the extraordinary circumstance when *no* productive or economically beneficial use of land is permitted, it is less realistic to indulge our usual assumption that the legislature is simply "adjusting the benefits and burdens of economic life" in a manner that secures an "average reciprocity of advantage" to everyone concerned.[144]

The Court thus indicated that at least one reason regulations "adjusting the benefits and burdens of economic life" are less likely to take property is that they secure an "average reciprocity of advantage."[145] As I will argue later, this characteristic of governmental

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134, at 449. Steven Eagle has argued that *Penn Central*'s expression of the character element "differentiates only between physical and regulatory actions. It gives an undifferentiated grade of 'pass' to all programs promoting the 'common good,' regardless of the extent to which they do so or to how evenly they distribute corresponding burdens. Fairness, it would seem, requires more." Eagle, *supra* note 136.

142. *Penn Central*, 438 U.S. at 124.

143. Penn. Coal Co. v. Mahon, 260 U.S. 393, 415 (1922).

144. Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1017-18 (1992) (internal citations omitted).

145. *See* John D. Echeverria, *The "Character" Factor in Regulatory Takings Analysis*, ALI-ABA Continuing Legal Education: Wetlands Law and Regulation SK081 ALI-ABA 143, 150-51 (June 9-10, 2005) (identifying reciprocity as a possible definition of the "character" of the governmental action). The Court has not always been so clear about its understanding of why "adjusting benefits and burdens" is a justification for uncompensated regulation. In

regulation relates to the legitimacy of the regulatory means and ends in a means-ends analysis that is distinctive to the Takings Clause and different from the substantive due process means-ends analysis that *Lingle* declared is not required by the Takings Clause.

The Court itself has previously suggested that whether a regulation substantially advances a legitimate purpose is part of the relevant "character of the governmental action." In *Keystone Bituminous Coal Ass'n v. DeBenedictis*,[146] the Court quoted the substantial advancement test from *Agins*, citing *Penn Central* as additional support, then proceeded to apply the substantial advancement test to the case.[147] The Court said that, "unlike the Kohler Act, the character of the governmental action involved here leans heavily against finding a taking; the Commonwealth of Pennsylvania has acted to arrest what it perceives to be a significant threat to the common welfare."[148] The Court thus considered the substantial advancement of a legitimate public purpose to be a relevant characteristic of the governmental action under the *Penn Central* framework.[149] Justice O'Connor suggested the same perspective in her concurring opinion in *Palazzolo v. Rhode Island*.[150] She said that one significant factor in takings decisions is "'the character of the governmental action.' The purposes served, as well as the effects produced, by a particular regulation inform the takings analysis."[151] O'Connor then cited the *Penn Central* version of the means-ends test: "a use restriction on real property may

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Connolly v. Pension Benefit Guaranty Corp., 475 U.S. 211 (1986), the Court held that federal legislation did not take property by requiring employers withdrawing from multiemployer pension plans to pay the employer's share of the plans unfunded vested benefits. *Id.* at 217. The Court addressed the *Penn Central* factors, and in discussing the character of the governmental action, said: "This interference with the property rights of an employer arises from a public program that adjusts the benefits and burdens of economic life to promote the common good and, under our cases, does not constitute a taking requiring Government compensation." *Id.* at 225. The opinion does not clearly indicate whether the Court felt that the law was not a taking simply because it was an economic regulation to promote the common good, or whether it felt that the law provided reciprocal benefits by requiring all withdrawing employers to contribute their proportionate share, thus helping all participating employers to provide benefits to their employees.

146. 480 U.S. 470 (1987).

147. *Id.* at 485.

148. *Id.*

149. *See* Echeverria, *supra* note 145, at 148-49 ("In applying the first branch of this test, the Court focused in various ways on what it termed the 'character' or 'nature' of the government action, apparently equating the *Penn Central* character factor with the *Agins* substantially advances test."); John D. Echeverria, *Making Sense of* Penn Central, 23 UCLA J. ENVTL. L. & POL'Y 171, 189 (2005) ("The Court [in *Keystone*] at several points equated the substantially advances inquiry with an examination of the 'character' or 'nature' of the government action.").

150. 533 U.S. 606 (2001).

151. *Id.* at 634 (O'Connor, J., concurring) (internal citations omitted).

constitute a 'taking' if not reasonably necessary to the effectuation of a substantial public purpose."[152] These passages likewise suggest that the "character" factor includes consideration of the regulatory purposes.

The Court's decision in *Hodel v. Irving*[153] includes another, more subtle, consideration of regulatory ends under the "character" label. The Court held that the Indian Land Consolidation Act of 1983 took property by declaring that certain small fractional interests in Indian lands would escheat to the tribe without requiring compensation. The Court described the "character" of this statute as "extraordinary" because it essentially eliminated the right to pass on this type of property to one's heirs, "even when the passing of the property to the heir might result in consolidation of property—as for instance when the heir already owns another undivided interest in the property."[154] The Court thus suggested that if a statute restricts property even when it serves no legitimate purpose, that characteristic makes it more likely to be a taking.

So, even if a regulation is not necessarily a taking because of its irrationality under the substantive due process doctrine, sometimes the legislative ends and the effect of the chosen means may indicate that a regulatory burden is unfairly distributed and should require compensation. Even after abandoning the "substantially advances" test of *Agins*, the Court still affirmed the relevance of the "character of the governmental action."[155] In some cases, at least, the relevant character of a land use regulation includes the purposes it serves and whether the chosen means accomplish those purposes. The next Part discusses particular ways in which, consistent with *Lingle*, means and ends may still be relevant to determination of a taking.

V. HOW THE REGULATORY CHOICE OF "MEANS" MAY TAKE PROPERTY

If the regulatory means do not advance any public purpose, the regulated owner may understandably feel unjustly burdened. The owner loses some of her property rights for no good reason at all. Why should she be made to give up anything when it is not legiti-

152. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 127 (1978).

153. 481 U.S. 704 (1987).

154. *Id.* at 716.

155. Benjamin Barros has argued that, despite the Court's reaffirmation of the *Penn Central* character factor in *Lingle*, the Court's analysis "illustrates why the character of the government act generally should have no role in the takings analysis" other than in "relatively narrow circumstances" when the regulation involves a physical invasion or is abating a common law nuisance. Barros, *supra* note 26, at 353-54.

mately benefiting the public?

Nevertheless, the Court in *Lingle* suggested that this is not the sort of unfairness the Takings Clause is meant to prevent. After all, why should the public have to pay either, if the public is not gaining anything from the regulation?[156] Rather, the Court reasoned that the Takings Clause is meant to avoid unfairness in the magnitude, character, or distribution of regulatory burdens.[157] Although one might still say that the irrational "character" of a regulation makes it more unfair, the Court said that would not require compensation because "an ineffective regulation may not significantly burden property rights at all, and it may distribute any burden broadly and evenly among property owners. The notion that such a regulation nevertheless 'takes' private property for public use merely by virtue of its ineffectiveness or foolishness is untenable."[158] While irrational regulations are rare—and thus unique in a way—they may merely impose a modest burden on virtually all landowners and in that sense not unfairly burden particular individuals.

But the regulatory means may be unfair in other ways, consistent with the principles expressed in *Lingle*, because of their irrationality or arbitrariness or the extent to which they accomplish a legitimate purpose.

A. Means That Advance a Purpose for Others, but Not for the Regulated Owner

One of these ways is when the means advance a legitimate purpose for some, but not for the regulated owners themselves. The extent to which the regulatory means accomplishes the public purpose may in this situation indicate unfairly distributed regula-

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156. *See, e.g.*, Kayden, *supra* note 28, at 322:

> Finally, the fundamental purpose of the just compensation clause—to assure that private individuals do not bear burdens which, in all fairness and justice, should be borne by society as a whole—is not necessarily furthered by a guarantee of means-ends rationality. Regulations failing to substantially advance legitimate state interests do not inherently implicate concerns about distributional fairness to a greater degree than regulations that substantially advance legitimate interests. Indeed, a regulation may reflect a perfect fit between means and ends and advance wonderful public interests, yet unfairly distribute public burdens. The thing about 'irrational' regulations is that they should not be borne by either society as a whole or by a single individual, because they are beyond the constitutional authority of the government to enact in the first place. (footnote omitted).

157. *See* Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 542 (2005) (criticizing the substantial advancement test for not revealing anything "about the *magnitude or character of the burden*" or "how any regulatory burden is *distributed* among property owners").

158. *Id*. at 543.

tory burdens. This sort of unfairness might also be described as an unfair end: to benefit a group of owners other than the regulated owners.

From early on, the Supreme Court recognized that land use regulations may require compensation if they burden an owner to benefit others. In *Pennsylvania Coal*, the Court observed that the challenged statute, which restricted the mining of coal in order to maintain surface support, benefited other private parties who owned surface land, but not the coal company itself. The Court acknowledged that there is a public interest even in protecting the welfare of private surface owners but pointed out that the statute "does not apply to land when the surface is owned by the owner of the coal."[159] This statute thus was different from the statute in *Plymouth Coal Co. v. Pennsylvania*,[160] which

> require[d] a pillar of coal to be left along the line of adjoining property, that with the pillar on the other side of the line would be a barrier sufficient for the safety of the employees of either mine in case the other should be abandoned and allowed to fill with water.[161]

Even though that statute would likewise have "ha[d] very nearly the same effect for constitutional purposes as appropriating or destroying" rights to mine certain coal, the Court suggested it would not be a taking because it "secured an average reciprocity of advantage."[162] Although the regulated owner suffered a regulatory burden, it received a corresponding benefit from the regulation's restriction of its neighbors to help protect the safety of its own employees.[163]

Pennsylvania Coal thus indicates that reciprocal benefits may justify regulations that otherwise would require compensation. But the Court did not say that regulations require compensation whenever they do not provide reciprocal benefits. That would go too far. As the Supreme Court more recently observed,

> [i]n the course of regulating commercial and other human affairs, Congress routinely creates burdens

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159. Penn. Coal Co. v. Mahon, 260 U.S. 393, 414 (1922).
160. 232 U. S. 531 (1914).
161. *Penn. Coal*, 260 U.S. at 415.
162. *Id.* at 414-15.
163. *See* Jan G. Laitos, *Takings and Causation*, 5 WM. & MARY BILL RTS. J. 359, 404 (1997) (discussing reciprocity of advantage in *Plymouth Coal*).

> for some that directly benefit others. For example, Congress may set minimum wages, control prices, or create causes of action that did not previously exist. Given the propriety of the governmental power to regulate, it cannot be said that the Taking Clause is violated whenever legislation requires one person to use his or her assets for the benefit of another.[164]

Still, a regulation that only burdens some, while benefiting others, is certainly more likely to be unfairly distributed than a regulation that benefits those who are burdened.[165]

In *Agins v. City of Tiburon*, the Court seemed to connect the reciprocity of advantage justification to the substantial advancement test. After reciting the test, the Court said that "the zoning ordinances substantially advance legitimate governmental goals" in avoiding "the ill effects of urbanization."[166] But in explaining the public benefits of the ordinances, the Court also pointed out that the

> ordinances benefit the appellants as well as the public by serving the city's interest in assuring careful and orderly development of residential property with provision for open-space areas. There is no indication that the appellants' 5-acre tract is the only property affected by the ordinances. Appellants therefore will share with other owners the benefits and burdens of the city's exercise of its police power. In assessing the fairness of the zoning ordinances, these benefits must be considered along with any diminution in market value that the appellants might suffer.[167]

Perhaps the Court recognized that the substantial advancement test could help determine the fairness of regulatory burdens by drawing attention not to the mere permissibility of the goals served, but to the legitimacy of such goals in land use regulation: whether the public goals include benefits to those regulated or just benefits to others.

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164. Connolly v. Pension Benefit Guaranty Corp., 475 U.S. 211, 223 (1986).

165. *See, e.g.*, United States v. Sperry Corp., 493 U.S. 52, 59-64 (1989) (holding that deduction from Iran-United States Claims Tribunal award to help pay the costs of the tribunal was not a taking because the claimant received benefits fairly approximate to the deducted fee).

166. Agins v. City of Tiburon, 447 U.S. 255, 261 (1980).

167. *Id*. at 262.

The more a regulation burdens an owner without benefiting her, the more likely the regulatory burdens are unfairly distributed and the regulation is a taking. But, a regulation would not be a taking simply because it burdens the owner more than it benefits her. Justice Brennan's opinion in *Penn Central* stressed that "[l]egislation designed to promote the general welfare commonly burdens some more than others," and does not require compensation simply because it impacts some more severely than others.[168] Furthermore, Justice Brennan denied that Penn Central was "solely burdened and unbenefited," because "the preservation of landmarks benefits all New York citizens and all structures, both economically and by improving the quality of life in the city as a whole."[169] *Penn Central* thus suggested that a regulatory burden may be unequal but fair because, even though the regulated owner bears a disproportionate burden, the owner is benefited by the regulatory burden on other owners.[170] Penn Central still enjoyed some reciprocal benefit from the fact that other property owners were subject to the landmark preservation regulation just as Penn Central was.

Some have argued that even if a particular regulation does not directly benefit the burdened owner by restraining others, every rational land use regulation makes a better community and thus benefits every citizen and every property in the community, including the regulated owners and their property.[171] Raymond Coletta, for example, argues:

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168. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 133-34 (1978); *see also* Raymond R. Coletta, *Reciprocity of Advantage and Regulatory Takings: Toward a New Theory of Takings Jurisprudence*, 40 AM. U. L. REV. 297, 329 (1990) ("Recalling prior explanations of the concept of reciprocity of advantage, Brennan emphasized that there was no significance to the fact that the appellants were burdened more than benefited. As long as some benefits accrued to the regulated party, reciprocity demands were met." (footnote omitted)).

169. *Penn Cent.*, 438 U.S. at 134.

170. Justice Rehnquist disagreed. He pointed out that only 400 of over one million buildings in New York were designated historic structures and that "the landmark designation imposes upon [the owner] a substantial cost, with little or no offsetting benefit except for the honor of the designation." *Id.* at 138-39 (Rehnquist, J., dissenting).

171. *See* Coletta, *supra* note 168, at 329:

> Brennan's relaxation and widening of the benefit criterion significantly expanded the concept of average reciprocity of advantage. Without the requirement of some individualized nexus between the burden and the benefit, nearly every police power regulation can be justified on reciprocity grounds. Because the very purpose of land use restrictions is to confer benefits on the general community, regulated landowners, by virtue of being members of the community, always benefit, however obtusely, from the restrictions. (footnote omitted).

> Reciprocity demands should be deemed to be met, and the regulation therefore deemed to be a legitimate exercise of the police power, in any case where the land use restrictions affirmatively enhance the community's welfare. Therefore, rather than requiring that direct individualized benefits accrue to the burdened individual, reciprocity defenses would focus on the benefits gained by the community at large. Individuals' use of property could legally be restricted even where their properties received no reciprocal, or offsetting, enhanced value; insofar as the individual landowners, in their role as members of society, could be characterized as sharing in the restriction's benefit, they would be denied legal redress. In short, the concept of "average reciprocity of advantage" could be utilized to provide broad justification for land use regulation and thereby substantially limit the accessibility of inverse condemnation actions.[172]

Some of the Court's later cases seem to make this point as well. In *Andrus v. Allard*,[173] for example, the Court justified a restriction on property by referencing Justice Brandeis's explanation in *Pennsylvania Coal* that property owners must "bear the . . . burden [of regulation] to secure 'the advantage of . . . doing business in a civilized community.'"[174] In *Hodel v. Irving*,[175] the Court held that a law escheating to tribes small undivided fractional interests in Indian lands was a taking. But the Court offered "weakly" in support of the statute

> something of an "average reciprocity of advantage," to the extent that owners of escheatable interests maintain a nexus to the Tribe. Consolidation of Indian lands in the Tribe benefits the members of the Tribe. All members do not own escheatable interests, nor do all owners belong to the Tribe. Nevertheless, there is substantial overlap between the two groups. The owners of escheatable interests often benefit from the escheat of others' fractional interests. Moreover, the whole benefit gained is greater

172. *Id*. at 303.
173. 444 U.S. 51 (1979).
174. *Id*. at 67.
175. 481 U.S. 704 (1987).

> than the sum of the burdens imposed since consolidated lands are more productive than fractionated lands.[176]

So, even if the property owner did not enjoy any direct, personal benefit from consolidation of lands, the owner might enjoy a benefit from consolidation in the tribe.

Furthermore, even if the specific regulation at issue does not produce a corresponding benefit (direct or indirect) to the burdened party, other land use regulations will certainly benefit the burdened party. In *Keystone Bituminous Coal Ass'n v. DeBenedictis*,[177] the Supreme Court suggested that even this sort of benefit might mitigate the impact or unfairness of a regulation and thereby avoid the just compensation requirement.[178] The Court reasoned that when a regulation "merely restrains uses of property that are tantamount to public nuisances," the regulation is, at least, "consistent with the notion of 'reciprocity of advantage.'"[179] Even though the nuisance-preventing regulation may burden a particular owner, the owner will "in turn, benefit greatly from the restrictions that are placed on others."[180]

If the benefits of regulatory activity generally offset the burdens of a specific regulation—and those benefits include not just direct benefits but also the benefits of living in an orderly society—the Takings Clause would almost never require just compensation for regulation. Any regulation that accomplishes a public purpose would provide diffuse societal benefits and, even if a particular regulation did not accomplish such a purpose, other regulations of the same type surely would.[181] But the Supreme Court's decisions

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176. *Id*. at 715-16 (citation omitted).

177. 480 U.S. 470 (1987).

178. *See* Laitos, *supra* note 163, at 407 ("[U]nder *Keystone*'s variant of reciprocity, the advantage that the burdened property owner experienced need not result from the legislation that created the burden.").

179. *Keystone Bituminous Coal*, 480 U.S. at 491.

180. *Id*.; *see also* Cordes, *supra* note 115, at 47 (describing such "general reciprocity"); Andrew W. Schwartz, *Reciprocity of Advantage: The Antidote to the Antidemocratic Trend in Regulatory Takings*, 22 UCLA J. ENVTL. L. & POL'Y 1, 64 (2004) ("Takings should accordingly be limited to those narrow cases where the claimant proves a categorical taking and the complete absence of reciprocity, not just from the regulation in question, but from the whole system of applicable economic regulations, of which the particular regulation is merely a part.").

181. *See, e.g.*, Coletta, *supra* note 168, at 364 ("Considering this 'societal contribution' to a parcel's economic value as one of the benefits of living in a civilized society, most land use regulations provide a reciprocity of advantage since most regulations implement public goals."); Laitos, *supra* note 163, at 413:

> Third, Brandeis's model, taken to its logical extreme, as in *Keystone*, effectively would swallow the Takings Clause so long as a regulation burdening private property in some fashion advanced the public interest. In

clearly indicate that some land use regulations do burden individual owners unfairly and require just compensation, even though they are part of a rational regulatory scheme that provides legitimate public benefits. So there must be some limit on the range and types of regulatory benefits that are considered as mitigating the burden of a land use regulation. Some have argued that only direct benefits to the individual owner, resulting from the challenged regulation itself, should be considered.[182] But even if broader benefits of a regulatory scheme are considered in assessing the regulatory burden imposed on a property owner, the essential point is that, as Justice Rehnquist argued in dissent in *Keystone Bituminous Coal*, the Just Compensation Clause

> is designed to prevent "the public from loading upon one individual more than his just share of the burdens of government, and says that when he surrenders to the public something more and different from that which is exacted from other members of the public, a full and just equivalent shall be returned to him."[183]

In general, all members of a community enjoy the benefits of living in an ordered society. If an individual bears an additional and unique regulatory burden to provide those benefits, the fact that she enjoys the benefits along with everyone else does not change

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> *Keystone*, the 'advantage' the property owner enjoyed did not result from the statute that created the burden. So long as a statute confers any benefits on the society in which an owner exists, reciprocity would be present, and no taking would result. The government could then circumvent its just-compensation duty simply by providing some reciprocal benefits to the general community, even if the reciprocal value to the property owner was far less than what just compensation requires. This would lead to the anomalous result that a property regulation reasonably related to a public purpose could never be a taking." *Id.* (footnote omitted).

182. *See* Steven J. Eagle, *Planning Moratoria and Regulatory Takings: The Supreme Court's Fairness Mandate Benefits Landowners*, 31 FLA. ST. U. L. REV. 429, 469 (2004) ("The notion of 'reciprocity of advantage' . . . works so long as the category of landowners burdened by the restrictions individually is coextensive with the category of landowners and citizens who are benefited."); Laitos, *supra* note 163, at 414 ("Reciprocity sufficient to defeat a takings claim requires that the owners receive a direct in-kind benefit rather one due solely to their membership in the general community. This is the better rule, and the one that the Supreme Court and many lower courts have now endorsed."(footnote omitted)); Frank R. Strong, *On Placing Property Due Process Center Stage in Takings Jurisprudence*, 49 OHIO ST. L.J. 591, 617 (1988) ("For Holmes the concept [of reciprocity of advantage] was applicable only in the presence of a direct, in-kind reciprocal, as in *Plymouth Coal*, *New York Central*, and (less closely) *Ambler Realty*.").

183. *Keystone Bituminous Coal Ass'n*, 480 U.S. at 512 (Rehnquist, J., dissenting) (quoting Monongahela Navigation Co. v. United States, 148 U.S. 312, 325 (1893)).

the fact that she is bearing more than her fair share of the regulatory burden in obtaining those benefits. So whatever the benefits she receives, the question is not simply whether she received regulatory benefits as well as bearing regulatory burdens, or even whether the benefits exceeded the burdens. The question is whether the net regulatory impact on her—burdens and benefits—is fair in comparison to the net impact on the rest of the community, even though the net impact certainly does not have to be equal for all.

That is why Justice Stevens has maintained that "a regulation that targets one or two parcels of land" is more likely to be a taking than "a regulation that enforces a statewide policy."[184] If a regulation applies to all landowners, then the burden obviously is not unfairly concentrated on particular owners, and the net regulatory impact will be roughly the same for all owners. A regulation that applies generally will not only avoid concentrated burdens but will make reciprocal benefits likely:

> [T]he generality v. particularity of a regulation speaks directly to the question of whether the apparent burden imposed by a regulation on an owner may be offset by the corresponding benefits to that owner from the fact that his neighbors and others in the community are similarly restricted. Quite apart from the direct calculation of the economic impact of a regulation, using the "with and without" method or some other approach, the generality v. particularity of a regulation provides a useful, alternate perspective on whether a regulation may impose a severe, unfair burden.[185]

As I discussed earlier, *Lucas* suggested that the "substantial advancement" test was an evolution of this generality principle expressed in *Penn Central*, that regulations are less likely to require just compensation if they are "reasonably related to the implementation of a policy . . . expected to produce a widespread public benefit and applicable to all similarly situated property."[186] So this is one way that the regulatory means and ends are still relevant in takings law. Even though regulations are permissible exercises of

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184. Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1073 (1992) (Stevens, J., dissenting); *see also* Echeverria, *supra* note 145, at 151.

185. Echeverria, *supra* note 145, at 159-60; *see also* Echeverria, *supra* note 149, at 204.

186. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 133 n.30 (1978); *see also supra* nn. 66-71 and accompanying text.

the police power as long as they rationally benefit some part of the public, they may require just compensation if they do not apply to all similarly situated property, or do not produce a reciprocal benefit for those regulated.

B. Restraining Property That Doesn't Cause the Problem to Be Solved

In substantive due process doctrine, a rational regulation generally is one that could be thought to accomplish the intended purpose. By using substantive due process language, the substantial advancement test of takings law naturally was often understood to mean the same thing.[187] I have argued that a regulation that does not accomplish a legitimate purpose should be considered a taking as well but, properly understood, the substantial advancement test looks for another sort of rationality as well: whether the regulatory means chosen, although it may clearly be one of the possible ways of accomplishing the public purpose, is a rational or an arbitrary choice from among those possible means. If the use of certain property somehow interferes with the public purpose or causes the need for the regulation, then it is rational and not arbitrary to accomplish the purpose by regulating it. But if the government just chooses particular property to bear the load of accomplishing the purpose, even though its use does not somehow uniquely create the need for regulation, then the government has chosen a regulatory means that, while within the scope of the police power, requires just compensation to the owners chosen to bear the load.

Some accounts of substantive due process might also invalidate an unfair choice from among possibly effective means if the chosen means were "unduly oppressive upon individuals."[188] But substantive due process is primarily or even solely concerned with whether the chosen means are actually an exercise of the government's

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187. *See, e.g.*, Yee v. City of Escondido, 503 U.S. 519, 530 (1992) (observing that whether the regulation benefited only current mobile home owners "might have some bearing on whether the ordinance causes a *regulatory* taking, as it may shed some light on whether there is a sufficient nexus between the effect of the ordinance and the objectives it is supposed to advance.").

188. Lawton v. Steele, 152 U.S. 133, 137 (1894); *see also* Presbytery of Seattle v. King County, 787 P.2d 907, 913 (Wash. 1990) (observing that unduly oppressive regulations may deny substantive due process and identifying as one consideration "the extent to which the owner's land contributes to [the public problem]"); Berger, *supra* note 55, at 856 ("In *Lawton v. Steele*, the Court indicated for the first time that a confiscatory land use regulation, that is, one 'unduly oppressive upon individuals' might be unconstitutional. However, it did not make clear whether it considered this to be a taking or a deprivation of due process." (footnotes omitted)).

power to pursue public goals. The Takings Clause, on the other hand, serves a different purpose. The Takings Clause requires the government to pay compensation when it chooses means that burden individuals too much or too unfairly. So the Takings Clause more naturally examines the choice of means, not just whether the means is one of a class of possible means to a legitimate end. This type of means-ends test, which examines the relationship between the use of the regulated property and the regulation's goals, is primarily meant to ensure fairness, not rationality or efficiency.[189] Yet it still is a type of means-ends test because it considers whether the chosen means are a natural or necessary solution to a problem—whether the owners' property use would somehow prevent accomplishment of the public purpose if unregulated—or whether the means arbitrarily burden some owners to solve a problem.[190]

This inquiry might be called a "reasonably necessary means" test, since the fundamental question is whether the means is needed to accomplish the purpose, rather than just appropriate. The *Agins* substantial advancement formulation, rejected by the Court in *Lingle*, does not suggest this type of means-ends inquiry. *Agins* stated that "[t]he application of a general zoning law to particular property effects a taking if the ordinance does not substantially advance legitimate state interests."[191] As far as this expression goes, a regulation would be a taking only if the regulation did not actually accomplish a legitimate purpose. But the means-ends formulation of *Penn Central* does at least suggest the possibility of such an inquiry. The Court there said that a regulation may be a taking if not "reasonably necessary to the effectuation of a sub-

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189. *See* John J. Costonis, *Presumptive and Per Se Takings: A Decisional Model for the Taking Issue*, 58 N.Y.U. L. REV. 465, 488-89 (1983):

> The core value of use-dependency is fairness, whether a property owner has been singled out in a manner consistent with the just share principle; the core value of reasonable relationship is rationality or, perhaps, nominal efficiency, whether the measure is reasonably designed to achieve its goals irrespective of its redistributional consequences." (footnote omitted);

Molly S. McUsic, *Looking Inside Out: Institutional Analysis and the Problem of Takings*, 92 NW. U. L. REV. 591, 604 (1998) ("The second meaning of the substantially advance requirement—the cause-effect test—focuses on whether the burden of a regulation is properly placed on a particular owner."); Radford, *supra* note 30, at 390-91 ("It is the requirement of a *cause-effect* nexus, not just an ends-means fit, that offers real protection against the imposition of unjustified or disproportionate burdens on individual property owners.").

190. *See* Douglas W. Kmiec, *The Original Understanding of the Taking Clause Is Neither Weak Nor Obtuse*, 88 COLUM. L. REV. 1630, 1651 (1988) ("[T]he nexus requirement to be applied in these cases measures not just the closeness of fit between regulatory means and ends but also whether the burden of the regulation is properly placed on *this* landowner.").

191. Agins v. City of Tiburon, 447 U.S. 255, 260 (1980).

stantial public purpose."[192] Although this language also echoes early substantive due process cases,[193] verbally it suggests some investigation into whether the means are "necessary," not just whether they are appropriate or effective. So if the chosen means burden owners unnecessarily, then it is more likely to require just compensation.

This means-ends inquiry might also be considered a causation test. But rather than just asking whether the regulation causes a public benefit, this test asks whether the property use in question somehow causes the public need—the absence of the public benefit.[194] If a property's use does not cause the public need, then the regulation almost surely "forc[es] some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole."[195]

This may sound like a revival of the harm-benefit distinction criticized by the Supreme Court in *Lucas*, but it is not. It does not matter whether the property use is viewed as causing a harm or

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192. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 127 (1978).

193. *See, e.g.*, *Lawton*, 152 U.S. at 137 ("To justify the state in thus interposing its authority in behalf of the public, it must appear . . . that the means are reasonably necessary for the accomplishment of the purpose . . . .").

194. *See* Laitos, *supra* note 163, at 364:

> Regulated property owners do not merit compensation when their use of property caused or contributes to a societal problem that a regulation seeks to redress. Under this exception, the government may single out the property owner or owners responsible for the problem and may require that they bear the regulation's cost. . . . If the owners subject to regulation did not cause the problem, however, then regulating that class of owners likely is an uncompensated taking.

McUsic, *supra* note 189, at 602 ("The [*Nollan*] Court described the 'substantially advance' test as one that examines the proportionate relationship between the amount of public harm caused by the owner and the regulatory burden imposed: a cause-effect test." (footnote omitted)); Radford, *supra* note 134, at 443, observing that *Lingle* characterized the substantial advancement test

> as a 'means-ends' inquiry into the effectiveness of legislation . . . without seeming to recall that this was not in fact how the Court had understood and applied the substantial advancement test originally. The obvious alternative interpretation—that the Ninth Circuit had simply misapplied the substantial advancement inquiry in *Lingle*, and that the standard retained its original vitality as a *cause-effect* inquiry—did not seem to occur to Justice O'Connor or any other member of the Court (footnotes omitted).

195. Armstrong v. United States, 364 U.S. 40, 49 (1960); *see also* Eagle, *supra* note 182, at 498:

> However, in a constitutional republic, rules do not change in ways that target the property of selected individuals to bear burdens unrelated to them. Where rules do act in such a fashion, their character augurs [sic] for the finding that there has been a taking under the *Penn Central* test.

Laitos, *supra* note 163, at 373 ("Absent a causative link, the idea of fairness incorporated in *Armstrong* as well as Rawls's equality principle indicates that it should be unconstitutional for government to saddle certain property owners with the burden of correcting the societal harm.") (footnotes omitted).

obstructing a benefit. In *Lucas*, the Court acknowledged early takings cases declaring that "'harmful or noxious uses' of property may be proscribed by government regulation without the requirement of compensation."[196] But the Court said that those cases really were just "our early formulation of the police power justification necessary to sustain (without compensation) *any* regulatory diminution in value."[197] So, while earlier cases suggested regulations that prevent harms are not takings, *Lucas* said the correct point is that regulations that do not prevent harms are takings. And harm prevention, the Court observed, "is often in the eye of the beholder."[198] To some, harm prevention may seem like "benefit-conferring."[199] The Court rejected such a distinction, thus indicating that the substantial advancement test, of which "harmful or noxious use" analysis was the progenitor, simply requires that a regulation prevent a harm or confer a benefit, however you want to look at it. If the regulation does not prevent a harm or confer a benefit, then it does not substantially advance a legitimate state interest and is a taking. But a regulation that does substantially advance a legitimate state interest—that prevents a harm or confers a benefit—is not thereby insulated from the requirement of just compensation. Such a regulation may nevertheless require compensation because of the burden imposed on the owner. The regulation is inherently non-compensable only if it does not take any property right from the owner—if it "do[es] no more than duplicate the result that could have been achieved in the courts" under "background principles of the State's law of property and nuisance."[200] But that is a different point altogether. The essential point here is the Court's preliminary point: a regulation must prevent a harm or confer a benefit or else it is a taking. The Court in *Lucas* did not elaborate, and did not need to elaborate, on any required relationship between the harm or benefit and the property's use.

The Court has commented on that required relationship in other cases, however. Although, as the Court stressed in *Lingle*, its decision in *Nollan v. California Coastal Commission*[201] dealt with a unique sort of land use regulation that demands surrender of property rights in exchange for regulatory permission, *Nollan* discussed the general application of the substantial advancement

196. Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1022 (1992).
197. *Id*. at 1026.
198. *Id*. at 1024.
199. *Id*.
200. *Id*. at 1029.
201. 483 U.S. 825 (1987).

test of takings law. The Court assumed that denying the property owners permission to build a bigger house would help protect the public's view of the nearby beach, overcome a psychological barrier to use of the public beach, and prevent congestion on the public beaches—all legitimate state interests.[202] But the Court suggested that was not enough to sustain a building prohibition against a takings challenge. The Court said that the Commission could deny the permit "if their new house (alone, or by reason of the cumulative impact produced in conjunction with other construction) would substantially impede these purposes."[203] In a footnote, the Court elaborated on this remark:

> If the Nollans were being singled out to bear the burden of California's attempt to remedy these problems, although they had not contributed to it more than other coastal landowners, the State's action, even if otherwise valid, might violate either the incorporated Takings Clause or the Equal Protection Clause. One of the principal purposes of the Takings Clause is "to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole." But that is not the basis of the Nollans' challenge here.[204]

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202. *See id*. at 835.

203. *Id*. (footnote omitted).

204. *Id*. at 835 n.4 (citations omitted); *see also* Berger, *supra* note 55, at 868 ("In other words, the *Nollan* opinion stands for the propositions that, for such a regulatory exaction to be valid: 1) the owner's proposed activity must create or contribute to the creation of a public need; and 2) the exaction must tend toward the satisfaction of that same need."); Echeverria, *supra* note 149, at 207-08 (arguing that, despite *Lucas*, regulations that prevent "obviously affirmatively harmful" land uses are less likely to require compensation than other regulations because fairness does not favor compensation in such cases); Radford, *supra* note 134, at 444:

> [T]he constitutional propriety of the regulatory imposition was expressly tied to the existence of a *causal* relationship between the proposed land use and the objective sought to be achieved by a regulatory constraint. The Coastal Commission, on the other hand, persistently argued that it should prevail under a *means-ends analysis*—a rationale that the Court seemingly recognized as inapposite when it applied the substantial advancement test in favor of the Nollans.

Justice Scalia also made this point in dissent in *Pennell v. City of San Jose*, 485 U.S. 1, 20 (1988) (Scalia, J., dissenting in part):

> [T]here is a cause-and-effect relationship between the property use restricted by the regulation and the social evil that the regulation seeks to remedy. Since the owner's use of the property is (or, but for the regulation, would be) the source of the social problem, it cannot be said that he has been singled out unfairly.

Nollan thus indicates that, even if a regulation accomplishes a legitimate purpose, it may be a taking if the regulation is not "reasonably necessary" to accomplish the purpose,[205] or in the words of *Nollan*, if leaving the property unregulated would not "substantially impede" the purpose.[206] The footnote also indicates the fairness principle that underlies this inquiry, rather than the rationality principle of substantive due process.

As *Lingle* observed, the Court's subsequent exactions case, *Dolan v. City of Tigard*, did not rely on takings law, despite hints to the contrary.[207] Instead, *Dolan* relied on unconstitutional conditions doctrine.[208] But *Dolan* nevertheless suggests an important point about this reasonable necessity or causation test. Even if the property use in question does cause the need for regulation, if the resulting regulation is seriously disproportional to the property's contribution to the problem, then the regulation raises the same fairness concerns.[209] In that case, the owner is not bearing a regulatory burden because her property needs to be regulated in that way in order to accomplish the public purpose; rather, she is bearing a regulatory burden to some extent merely because she is a convenient target to bear burdens the public should bear.[210] As *Lingle* suggests, poorly distributed burdens may be takings regardless of magnitude. A regulation may be poorly distributed altogether—where no good reason exists to impose a burden on certain owners and not others—but a regulation may also be poorly distributed because some owners bear a burden beyond what is required to mitigate whatever reasons justified placing the burden on them and not others in the first place. For example, in *Dolan*, the city could fairly prevent Dolan from developing her property in a way that would increase the risk of flooding. "[I]ncreasing the amount of impervious surface [would] increase the quantity and

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205. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 127 (1978).
206. *Id.* at 835.
207. *See* Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 547-48 (2005).
208. *See supra* notes 43-54 and accompanying text.
209. *See* Dolan v. City of Tigard, 512 U.S. 374, 391 (1994):
> We think a term such as 'rough proportionality' best encapsulates what we hold to be the requirement of the Fifth Amendment. No precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development.

210. *See* Laitos, *supra* note 163, at 398:
> The disproportionate-impact rule assumes that although laws, particularly exercises of the police power, can impact individuals, that impact should be proportionate to the individual's activity that triggers the need for regulation. The rule thereby prevents policymakers seeking regulation from enjoying benefits in excess of costs or from requiring that regulated property owners bear costs in excess of benefits. (footnotes omitted).

rate of storm water flow from [Dolan's] property,"[211] so the city could prevent her from doing that. "But the city demanded more—it not only wanted [Dolan] not to build in the floodplain, but it also wanted [her] property along Fanno Creek for its greenway system."[212] Even that demand would have been fair "[i]f [Dolan's] proposed development had somehow encroached on existing greenway space in the city," but it did not.[213] Even though the Court maintains that *Dolan* deals with a different doctrine and a different situation, and therefore the rough proportionality rule of *Dolan* does not apply to land use regulations generally,[214] the fairness principle it implements should apply to all regulations.

Lingle supports this conclusion by reaffirming that unfairly distributed burdens, not just large burdens, can be takings. The causation or reasonably necessary means-ends test identifies unfairly distributed burdens. The government may fairly burden an owner with regulations that prevent her property from interfering with a public purpose, but the government may not just choose owners—arbitrarily or because they happen to be convenient targets as they are seeking development permission—to bear burdens that are not connected to their land use. The Court has also expressed the relevance of this principle in cases not involving exactions. In *Eastern Enterprises v. Apfel*,[215] the Court said that when a regulation "singles out certain employers to bear a burden that is substantial in amount, based on the employers' conduct far in the past, and unrelated to any commitment that the employers made or to any injury they caused, the governmental action implicates fundamental principles of fairness underlying the Takings Clause."[216] Similarly, in *United States v. Willow River Power Co.*[217] the Court said that the Takings Clause "undertakes to redistribute certain economic losses inflicted by public improvements so that they will fall upon the public rather than wholly upon those who happen to lie in the path of the project."[218]

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211. *Dolan*, 512 U.S. at 392.

212. *Id*. at 393.

213. *Id*. at 394.

214. *See* City of Monterey v. Del Monte Dunes at Monterey, Ltd., 526 U.S. 687, 703 (1999):

> It was not designed to address, and is not readily applicable to, the much different questions arising where, as here, the landowner's challenge is based not on excessive exactions but on denial of development. We believe, accordingly, that the rough-proportionality test of *Dolan* is inapposite to a case such as this one.

215. 524 U.S. 498 (1998).

216. *Id*. at 537.

217. 324 U.S. 499 (1945).

218. *Id*. at 502; *see also* Laitos, *supra* note 163, at 391 ("The Court's apparent willingness to utilize the Takings Clause to protect property owners 'who happen to lie in the path'

So, for example, some courts have held that land use regulations have taken property when they "are clearly imposed to support or subsidize some distinct Government function or enterprise (such as the provision of public parks, schools, playgrounds, roads, airports, or flood control projects, etc.), where the burdens imposed are based largely on the accident of ownership of land at a particular location."[219] Similarly, Jan Laitos has observed:

> [n]o matter how strong the proffered state interest, if a regulation benefits a societal class whose needs the affected property owners did not create, the regulation constitutes a taking. Many lower courts have agreed that the government cannot require that property owners who are not responsible for the plight of low income people bear the costs of alleviating their economic problems.[220]

In the words of *Penn Central*, in such cases there may be "a widespread public benefit," but the regulation is not "applicable to all similarly situated property."[221] The regulated properties are not differently situated because they are not specially causing the need for regulation. Any other properties, or all properties, could just as well be required to share the burden. The burden is unfairly distributed and the burdened owners should be compensated.

This may seem to invite higher judicial scrutiny of legislative decisions about how to pursue permissible public purposes. The Court in *Lingle* cited this fear as one reason for rejecting the substantial advancement test.

> The *Agins* formula can be read to demand heightened means-ends review of virtually any regulation of private property. If so interpreted, it would require courts to scrutinize the efficacy of a vast array of state and federal regulations—a task for which

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of some government enterprise implies a special sensitivity to property owners whose use did not prompt the government action but were merely convenient targets of opportunity.").

219. 1 EDWARD H. ZIEGLER, JR. ET AL., RATHKOPF'S THE LAW OF ZONING AND PLANNING § 6:60 (4th ed. 2004) (citing cases); *see also* Allison Dunham, *A Legal and Economic Basis for City Planning*, 58 COLUM. L. REV. 650, 665 (1958):

> [In such cases] there is no approximation of equal sharing of cost or of sharing according to capacity to pay as there is where a public benefit is obtained by subsidy or expenditure of public funds. The accident of ownership of a particular location determines the persons in the community bearing the cost of increasing the general welfare.

220. Laitos, *supra* note 163, at 373-74 (footnotes omitted).

221. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 133 n.30 (1978).

> courts are not well suited. Moreover, it would empower—and might often require—courts to substitute their predictive judgments for those of elected legislatures and expert agencies.[222]

But the means-ends analysis I am advocating here does not require heightened means-ends review; it just requires judicial scrutiny of a different issue. Substantive due process rationality involves judicial examination of whether the chosen means are a rational way to accomplish the legislative purpose. Courts properly defer to legislative choices about what ends to pursue and how to pursue them.[223] On the other hand, this reasonably necessary means test, or causation test, requires judicial examination of whether the chosen means are a rational choice of means—whether there is a fair reason to choose a means that burdens the particular owners targeted by the regulation. Even though the Takings Clause thus asks a different question about legislative judgments, courts should still defer to legislative judgments in much the same way. First, courts should defer to legislative choices from among fair means. A particular regulation might fairly be applied to all properties or just some groups of properties that raise special concerns related to the public purpose. As long as the regulated properties are causally connected to the public need, the legislature should be free to choose from among permissible alternatives.[224] Second, courts should defer to legislative judgments about whether regulated properties are causally connected to the public need. As long as the legislature could rationally conclude that the regulated properties somehow cause the public need, courts should accept the legislative judgment. As long as courts are appropriately respectful of legislative judgments, this

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222. Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 544 (2005).

223. *See, e.g.*, Zahn v. Bd. of Public Works, 274 U.S. 325, 328 (1927):

> [I]t is impossible for us to say that their conclusion in that respect was clearly arbitrary and unreasonable. The most that can be said is that whether that determination was an unreasonable, arbitrary, or unequal exercise of power is fairly debatable. In such circumstances, the settled rule of this court is that it will not substitute its judgment for that of the legislative body charged with the primary duty and responsibility of determining the question.

224. *Cf.* Nat'l R.R. Passenger Corp. v. Atchison, Topeka & Santa Fe Ry. Co., 470 U.S. 451, 477 (1985) (holding that Congress "had absolutely no obligation to select the scheme that a court later would find to be the fairest, but simply one that was rational and not arbitrary"). *But see* Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 834 & n.3 (1987) (suggesting that different verbal formulations of substantial advancement test and substantive due process rationality test indicate different levels of judicial scrutiny); McUsic, *supra* note 189, at 603 ("[T]he Court [in *Nollan*] suggested that the means-end test would require a higher level of connection than merely a rational relationship between the regulation and the government's goal . . . .").

sort of judicial means-ends review should not result in judicial second-guessing of legislative judgments, but only judicial protection of individuals when there is no good reason to place regulatory burdens upon them rather than upon the public as a whole.

VI. HOW THE REGULATORY "END" MAY TAKE PROPERTY

Even after *Lingle*, the purpose of a regulation may also favor finding a regulation to be a taking requiring just compensation, even though the purpose may be a permissible police power goal under substantive due process. I have already discussed one way that the legislative purpose may indicate unfairly distributed burdens: when the purpose is solely to benefit a group other than the regulated owners, and those regulated neither enjoy a reciprocal benefit nor somehow caused the need that the regulation is meant to fill.[225] But there are other ways in which, using the words of the rejected *Agins* substantial advancement test, a regulation substantially advances an interest that is not "legitimate" in the takings context, regardless of whether it is a permissible public purpose within the police power.

A. The Regulatory Purpose Is to Get Private Property Rights for Cheap or Free

There is nothing wrong with the government wanting to obtain private property for public benefit. And there is nothing wrong with the government wanting to save money in doing so. But when the government regulates property not for the purpose of facilitating orderly development, harmonizing land use conflicts, or some other such direct regulatory benefit, but rather for the purpose of saving money on acquisition of the property, then the government's interest is not legitimate and the government must pay just compensation.

In such a case, the regulatory burden is inevitably unfairly distributed because of the regulatory purpose. As I discussed above, *Lingle* reaffirmed that a regulation may be a taking because of "how any regulatory burden is *distributed* among property owners."[226] A regulation that is intended to reduce the cost of acquiring the regulated property inevitably imposes an unfairly distributed burden on the property. The government seeks to acquire only a small percentage of all property, so such regulations will

225. *See infra* Part V.A.

226. *Lingle*, 544 U.S. at 529; *see also supra* Part III.B.

inevitably be concentrated on a relatively small group of properties. Of course, *Penn Central* points out that a regulation is not a taking just because it "has a more severe impact on some landowners than on others."[227] But there has to be some fair reason for the disproportion, as *Lingle* acknowledges. *Penn Central* explained that in a number of earlier cases, prohibitions of "harmful" uses were held not to be takings, despite unique and substantial burdens on the property owners, because "the restrictions were reasonably related to the implementation of a policy . . . expected to produce a widespread public benefit and applicable to all similarly situated property."[228] When regulations are intended to reduce the cost of acquiring private property, there may be a "widespread public benefit," but the regulations certainly are not "applicable to all similarly situated property." Instead, the regulatory burden applies only to those properties that the government happens to have targeted for acquisition, while virtually identical properties may be left unaffected.

1. Unrelated or Disproportional Conditions

One type of government regulation that advances this unfair purpose is the unrelated or disproportional exaction. When a property owner seeks permission to develop her land somehow, the government may condition such permission on the surrender of some property right to the government. In the *Nollan* and *Dolan* cases discussed above, the defending governmental entities had granted permission to build a bigger house on beachfront property only if the Nollans granted a public easement along the beach[229] and permission to expand a store and pave a parking lot only if Dolan granted easements for a storm drainage system and for a pedestrian and bicycle pathway.[230] When such a condition proportionally mitigates the harms of the proposed development, the condition confirms the legitimate purpose of the regulatory restriction. For example, if the City of Tigard was concerned about flooding because of Dolan building a bigger store and paving a parking lot, the city might simply deny permission altogether to avoid the increased risk of flooding. But the city might instead try to accommodate Dolan's interests without compromising the public interest in flood prevention. So the city might permit some develop-

227. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 133 (1978).
228. *Id*. at 133 n.30.
229. *See* Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 827-28 (1987).
230. *See* Dolan v. City of Tigard, 512 U.S. 374, 380 (1994).

ment, but prohibit building in the floodplain.[231] The city might even permit development only if Dolan would grant an easement for a storm drainage system that would manage the increased storm water flow from her property. Such conditions would show that the city really is trying to fairly accomplish the purpose of flood control while allowing private development that will not interfere with that purpose.[232]

But if the city imposes an unrelated or disproportional condition, then it changes the character of the government's otherwise legitimate regulation. For example, if the City of Tigard says it will either deny development permission altogether to prevent flooding, or it will grant development permission on the condition that Dolan grant an easement for a pedestrian and bicycle pathway, the condition changes the purpose of the city's conditional denial of development permission. Limiting the impervious surface on Dolan's land can reduce flooding, but inviting pedestrians and bicyclists to pass over her property will not change the risk of flooding at all.[233] Yet the city effectively says that even if Dolan does what is necessary to avoid the increased risk of flooding, it still will not let her develop her property because she will not surrender an easement for pedestrians and bicyclists.[234] So now the reason for the conditional denial is not flood control, but rather the owner's refusal to give up some property that the city would like to have.[235] That purpose is unfair under the *Armstrong* principle reaffirmed in *Lingle* because there is no good reason to require the owner to bear the burden of obtaining such public recreational amenities. Dolan bears the burden because she happens to own property where the city has decided to develop such an amenity, while others who own similar commercial property do not bear such a burden at all.

Although *Dolan* relied on a different theory—unconstitutional conditions—the Court's earlier opinion in *Nollan* explained how an unrelated condition makes the purpose of a conditional permit denial illegitimate. The Court described how "the Commission's assumed power to forbid construction of the house in order to protect

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231. *See id*. at 392-93.

232. *See* Romero, *supra* note 46, at 358-59.

233. *See Dolan*, 512 U.S. at 393 ("The city has never said why a public greenway, as opposed to a private one, was required in the interest of flood control.").

234. The city argued that the public pathway easement would offset increased traffic resulting from a bigger store, but the Court found that "the city has not met its burden of demonstrating that the additional number of vehicle and bicycle trips generated by petitioner's development reasonably relate to the city's requirement for a dedication of the pedestrian/bicycle pathway easement." *Id*. at 395.

235. *See* Romero, *supra* note 46, at 359-61.

the public's view of the beach must surely include the power to condition construction upon some concession by the owner, even a concession of property rights, that serves the same end."[236] But if the condition does not "further the end advanced as the justification for the prohibition," then the purpose of the regulation is different.[237] The Court explained:

> When that essential nexus is eliminated, the situation becomes the same as if California law forbade shouting fire in a crowded theater, but granted dispensations to those willing to contribute $100 to the state treasury. While a ban on shouting fire can be a core exercise of the State's police power to protect the public safety, and can thus meet even our stringent standards for regulation of speech, adding the unrelated condition alters the purpose to one which, while it may be legitimate, is inadequate to sustain the ban. Therefore, even though, in a sense, requiring a $100 tax contribution in order to shout fire is a lesser restriction on speech than an outright ban, it would not pass constitutional muster.[238]

The government in that case still has a legitimate reason for seeking tax contributions, just as the government might have a legitimate reason for seeking public pathways, but the regulation—the ban on smoking in the Court's example, or the conditional denial of permission to expand a store—now is not for the purpose of preventing dangerous panic in crowded theaters or preventing flooding in Tigard. The government is willing to allow those harms. Once the unrelated condition is imposed, the only reason a person cannot shout fire in a crowded theater is because she has not paid $100. That purpose—"quite simply, the obtaining of an easement to serve some valid governmental purpose, but without payment of compensation"—is not a "'legitimate state interest[]' in the takings and land-use context." Instead, "the building restriction is not a valid regulation of land use but 'an out-and-out plan of extortion.'"[239]

The Court in *Lingle* insisted that it was not disturbing the nexus and rough proportionality requirements of *Nollan* and *Dolan* because those cases "cannot be characterized as applying the

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236. *Nollan*, 483 U.S. at 836.
237. *Id.* at 837.
238. *Id.*
239. *Id.* (citations omitted).

'substantially advances' test."[240] The Court is right that *Dolan* relied on unconstitutional conditions theory and therefore did not need to apply the substantial advancement test. But *Nollan* certainly can be characterized as applying the test. In fact, the critical passage in *Nollan* that identifies the essential constitutional objection—the passage with the speech restriction example discussed above—clearly says that the unconstitutional act is that, "[w]hatever may be the outer limits of 'legitimate state interests' in the takings and land-use context, this is not one of them."[241] The building restriction's purpose is changed by the unrelated condition into a purpose that is not a legitimate state interest. The constitutional violation in the *Nollan* opinion, then, is the failure to advance a legitimate state interest.[242]

This does not mean that the Takings Clause invites heightened scrutiny of legislative purposes. Courts should still defer to legislative choices among permissible purposes, as well as how to accomplish them. But the Takings Clause compensates owners, even though the legislative purpose is permissible, if the regulation is unfair or too burdensome. So a distinct takings version of a means-ends test would declare a subset of all permissible legislative purposes not to be impermissible, but to be illegitimate without compensation because those purposes inherently involve unfairly distributed burdens.[243]

Examining whether a condition is unrelated or disproportional does not require any more intrusive judicial scrutiny either. As the Court in *Lingle* observed, *Nollan* and *Dolan* did not "question whether the exaction would substantially advance *some* legitimate state interest. Rather, the issue was whether the exactions substantially advanced the *same* interests that land-use authorities asserted would allow them to deny the permit altogether."[244] This Takings Clause analysis does not require courts to examine any more closely than usual whether the regulation furthers a permissible purpose. In *Nollan*, for example, a court should not examine any more closely whether limiting the size of beachfront houses rationally furthers the purpose of preserving the public's visual access to the beach. But, as *Nollan* explained, when the government conditionally grants permission to develop despite such con-

240. *Lingle*, 544 U.S. at 547-48.

241. *Nollan*, 483 U.S. at 837.

242. Other parts of the *Nollan* opinion are not so clear about the Court's theory, however. But even though there are some inconsistencies in the Court's reasoning, this passage is the most clear and affirmative indication of the Court's constitutional theory for invalidating the unrelated exaction. *See* Romero, *supra* note 46, at 354.

243. *See id*. at 367.

244. *Lingle*, 544 U.S. at 547.

cerns about the public welfare, the government's own action indicates the government's objective purpose for the restriction: if the government restricts the use of property, it is only because the owner does not comply with the condition. If that condition roughly mitigates the harms of the development, then it does not rebut the court's deferential acceptance of the legislative choice of means and ends. But if the condition is unrelated or disproportional, then the government itself has revealed an illegitimate, extortionate purpose. Courts thus are not looking any more closely at legislative choices of ends or means but are simply examining a specific concern raised by the government's own action—the possibility that the government is regulating to get property for free. So courts in that case are just scrutinizing a different question, even though that question involves a more particularized, and thus an apparently less deferential, inquiry.[245]

Despite *Lingle*'s abandonment of the substantial advancement test as a redundant takings version of substantive due process, *Nollan* illustrates a way in which the regulatory purpose can indicate unfairly distributed burdens. *Lingle* maintains that such unfairness can result in takings. When an unrelated or disproportional condition is imposed on regulatory approval, the owner is subject to an unfair burden because the government does not make the regulatory decision based on whether the planned land use is in harmony with public interests. Instead, the government makes the decision based on whether the owner will submit to its extortionate scheme. The only reason the owner is singled out for such treatment is that the owner happens to own property that the government would like to obtain. Most store owners in Tigard would readily obtain permission to expand their stores and pave their parking lots, perhaps with restrictions requiring some property to remain undeveloped to avoid flooding. But, because Dolan happened to be on Fanno Creek, and that is where the city wanted a public greenbelt, she was conditionally denied permission. She had to give up some of her property in order to get it. So, when the *Nollan* principle is understood in this way, there is no reason for

245. *See* Dolan v. City of Tigard, 512 U.S. 374, 391 (1994) (taking an "intermediate position" and requiring governments to "make some sort of individualized determination" that an exaction is not only related to the "impact of the proposed development," but that the exaction is "roughly proportional" to the needs created by the development); Cordes, *supra* note 115, at 26-28 (characterizing "rough proportionality" as intermediate scrutiny because "of the potential abuse of the exaction process"); Romero, *supra* note 46, at 372 (arguing that the scrutiny required in exactions cases is not really heightened, just different, because the government's own actions raise the possibility of regulatory abuse); Schwartz, *supra* note 180, at 19 ("Heightened scrutiny emanates from the Court's concern that . . . the public agency might improperly leverage its police power . . . .").

the *Lingle* Court to distinguish it. Instead, the Court should recognize the principle of *Nollan* as one way in which regulatory burdens may be unfairly distributed.

2. Regulation to Reduce the Cost of Buying or Condemning

Unrelated or disproportional exactions reveal a government effort to obtain private property by "extortion" rather than by paying the owner a fair price. But exactions are only possible when owners seek permission to do something new with their properties. Even when the government imposes no exaction, though, government regulation may make property worth less and so, when the government buys or condemns the land, it will not have to pay as much. When the government does not have a legitimate reason for regulating the property, but does so only to acquire the land for less money, the regulatory end is inherently unfair in the same way an unrelated or disproportional exaction is unfair.

In a recent article I discussed the various ways in which the government might use its regulatory power to depress property values in anticipation of condemnation.[246] I will refer to that article and not repeat much of that discussion. The simplest version of this strategy would be if the government downzones property to less valuable uses, not because it believes that is a more appropriate land use for the area, but simply because the downzoning will reduce the market value of the land and then the government can buy the land for less when the time comes to condemn it. For example, in *Kissinger v. City of Los Angeles*,[247] the city rezoned property that was soon to be acquired for an airport from multi-family residential to single-family residential, reducing its market value from $114,000 to $48,000.[248] No other changes accounted for the rezoning, and surrounding property remained zoned for multi-family residential use.[249] The court concluded "that the true purpose of the ordinance was to prevent the improvement of the subject property in order that it might be acquired at a lesser price for airport purposes."[250] The court held that the city thereby took the property without just compensation, observing that "[a] zoning ordinance may not be used as a device to take property for public use without the payment of compensation."[251]

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246. Alan Romero, *Reducing Just Compensation for Anticipated Condemnations*, 21 J. LAND USE & ENVTL. L. 153 (2006).

247. 327 P.2d 10 (Cal. Ct. App. 1958).

248. *See id*. at 13-14.

249. *See id*. at 15.

250. *Id*. at 16.

251. *Id*.; *see also* San Diego Gas & Elec. Co. v. City of San Diego, 146 Cal. Rptr. 103,

Such regulation reflects the same type of unconstitutional strategy invalidated by the Court in *Nollan*, even though no exaction is involved in these cases. *Nollan* said that, "[w]hatever may be the outer limits of 'legitimate state interests' in the takings and land-use context," legitimate state interests do not include "the obtaining of an easement to serve some valid governmental purpose, but without payment of compensation."[252] The government does the same thing when it zones property for the purpose of reducing the cost of condemning it. The only difference is one of degree—the purpose of the regulation is to obtain property for less, rather than for free.[253]

So, for the same reason, this kind of a regulatory purpose indicates a taking requiring just compensation, not just a deprivation of substantive due process. Such a regulatory purpose by its very nature indicates unfairly distributed burdens. Burdens are imposed on certain owners "largely on the accident of ownership of land at a particular location" in order to "support or subsidize some distinct Government function or enterprise."[254] Rather than the benefited public bearing the burden equally, or even all similarly situated properties bearing the burden equally, only the unlucky few who happen to own the land chosen for acquisition bear the

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110 (Ct. App. 1978) ("[I]f the state downzones a property to decrease its value as a prelude to later acquiring the property, the zoning may be found to have been a condemnation."); Grand Trunk W. R. Co. v. City of Detroit, 40 N.W.2d 195, 200 (Mich. 1949) (holding zoning ordinance "unreasonable and confiscatory" because it zoned property residential even though it could not be used that way without government condemnation); State v. Gurda, 243 N.W. 317, 320 (Wis. 1932) (holding that city unlawfully zoned property residential to reduce the cost of condemning it for a road in the future); Gideon Kanner, *What to Do Until the Bulldozers Come? Precondemnation Planning for Landowners*, 27 REAL ESTATE L.J. 47, 60 (1998) ("[Z]oning may be changed so as to lower property values in anticipation of condemnation."); Romero, *supra* note 246, at 158-59.

252. Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 837 (1987).

253. *See* Romero, *supra* note 246, at 179.

254. 1 EDWARD H. ZIEGLER, JR. ET AL., RATHKOPF'S THE LAW OF ZONING AND PLANNING § 6:60 (4th ed. 2004) (citing cases); *see also* Berger, *supra* note 55, at 879:

> Takings rules . . . attempt to decide whether when government bears down harder on one person than the rest of society, there is some valid justification for its doing so. Such justification might be the wrongful or tortious conduct of the person, which the nuisance rule addresses, or that any detriments visited upon the person are *de minimis* or offset by a corresponding benefit to him. . . . It would not be a justification, however, that imposing a substantial burden results in great public benefit, if the person is without fault and fortuitously in the position where it becomes cheaper and easier to have him rather than society to bear the cost.

Allison Dunham, *supra* note 219, at 665:

> [T]here is no approximation of equal sharing of cost or of sharing according to capacity to pay as there is where a public benefit is obtained by subsidy or expenditure of public funds. The accident of ownership of a particular location determines the persons in the community bearing the cost of increasing the general welfare.

burden. This violates the fairness principle of *Armstrong* that was reaffirmed in *Lingle*.

B. The Regulation is in Bad Faith

In broader terms, any bad faith regulatory purpose favors finding the regulation to be a taking. Regulating property in order to get private property for cheap or free is one type of bad faith purpose: the government is not regulating because it decides that it is best for the community if the property is used or not used in a certain way, but rather because, by acting as if it had so decided, the government can obtain private property that it wants without spending as much money. But the government may have other bad faith reasons for regulating—reasons other than the genuine judgment that the community will be better off if the land is used or not used in a certain way. Any such bad faith purpose makes the regulation a taking for the same basic reason: the owner is burdened in a way that neither all owners, nor even all similarly situated owners, are burdened.

In *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, the Supreme Court suggested that the government's bad faith could make a regulatory act a taking. The Court stated that "[c]onsiderations of 'fairness and justice' arguably could support the conclusion that TRPA's moratoria were takings of petitioners' property based on any of seven different theories."[255] One of those theories was "that the agency was stalling in order to avoid promulgating the environmental threshold carrying capacities and regional plan mandated by the 1980 Compact," but that "bad faith theory" was "foreclosed by the District Court's unchallenged findings of fact" that "TRPA acted diligently and in good faith."[256] Even though the Court did not elaborate on why bad faith stalling would indicate a taking, the Court at least suggested that it would be a taking because of unfairly distributed burdens. The Court said that bad faith would raise "considerations of fairness and justice," quoting the *Armstrong* passage that the Takings Clause "was designed to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole."[257]

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255. Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 333 (2002).

256. *Id*. at 333-34; *see also* Echeverria, *supra* note 149, at 198-99 ("[T]he language in *Tahoe-Sierra*, and the Court's reference to *Del Monte Dunes*, has given rise to the idea that the relative bad faith versus good faith of government officials may be a relevant factor in takings analysis.").

257. Armstrong v. United States, 364 U.S. 40, 49 (1960).

A Federal Circuit case developed the idea that bad faith makes regulatory burdens unfair and that the "character" factor of *Penn Central* invites consideration of such bad faith in determining whether a regulation amounts to a taking. In *Cooley v. United States*,[258] property owners complained that the Army Corps of Engineers had taken their property by denying a wetlands fill permit under the Clean Water Act. The Federal Circuit held that the permit denial was a final action that was ripe for a takings challenge and remanded for the trial court to consider whether the taking was temporary and if it was compensable under *Penn Central*. In doing so, the court discussed the *Penn Central* factors for the trial court to consider on remand. In discussing "the character of the governmental action," the court said the trial court should "consider both the nature of the permitting process and the reasons for delaying the Cooley permit."[259] The court noted evidence that the Corps had requested additional information in order to delay a decision, not "in an altruistic effort to issue a permit."[260] Therefore, the court directed the trial court to "weigh whether the Corps' conduct evinces elements of bad faith. A combination of extraordinary delay and intimated bad faith, under the third prong of the *Penn Central* analysis, influences the character of the governmental action."[261]

In light of *Lingle* and its reaffirmation that unfair distribution of burdens may favor finding compensable takings, bad faith would include any conduct that indicated the government was not doing what it usually does with landowners generally and what it would do with similarly situated landowners when bad faith did not corrupt the process. Steven Eagle described some situations when bad faith might favor finding a taking:

> Assume, for instance, that a substantial planning moratorium is employed at the behest of a competitor who wishes to take over the landowner's business location, perhaps on the allegation of blight and through the intermediary of an urban redevelopment authority. Alternatively, assume the planning moratorium resulted from a process of selling condemnation powers or squeezing out owners not making the highest possible contribution to the municipal tax base. In all of these instances, the land-

258. 324 F.3d 1297 (Fed. Cir. 2003).
259. *Id*. at 1306.
260. *Id*. at 1307.
261. *Id*.

> owner would have a viable argument that the character of the governmental action lends itself to a finding that there has been a compensable taking.[262]

In cases like these, the government does not regulate for fair and usual reasons. As a result, the regulatory burdens are not distributed fairly. Other similarly situated owners are not subject to the same restraints because, for example, no competitor is urging a moratorium in the hopes of taking over the location. The purpose of a regulation can thus indicate unfairly distributed burdens and should be at least a relevant consideration in deciding whether the regulation is a taking.

VII. CONCLUSION

Lingle attempted to clarify and simplify takings law, conceptually separating substantive due process from takings law. That is certainly a worthy goal. But I have argued that, despite the different purposes of substantive due process and the Takings Clause, if a regulation is not rational under substantive due process doctrine, and yet is enforced against the property owner in a way that causes the owner to suffer loss, just compensation should be required. Even if it is too late for the Supreme Court to consider that argument, state courts could take that argument seriously under state constitutions.[263]

But even if *Lingle* is the end of such arguments, *Lingle* only rejected paying just compensation for a regulation solely because it denied substantive due process—in other words, because the means did not rationally advance a permissible public purpose. This may tempt courts to think that the choice or effectiveness of the means, or the legitimacy of the ends, may never be considered in deciding whether a regulation is a taking requiring just compensation. That would be a mistake. *Lingle* itself reaffirms that a regulatory burden may be a taking because it is unfair, not just because it is large. The choice of means may result in unfairly distributed burdens because the means do not benefit the regulated owners or because the regulated owners were not somehow responsible for the need to regulate in the first place. The regulatory end may also indicate unfairly distributed burdens if the purpose is to obtain property from the owner without having to pay just

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262. Eagle, *supra* note 182, at 497 (footnotes omitted).

263. *See, e.g.*, Johnson v. City of Minneapolis, 667 N.W.2d 109, 115 (Minn. 2003) (deciding under state constitution, rather than federal *Penn Central* test, that abuse "specifically directed against a particular parcel" may establish a regulatory taking).

compensation or to reduce the cost of the property when the government obtains it. And, more broadly, the regulatory end may indicate unfairly distributed burdens when the purpose is not a good faith attempt to improve the public welfare, but is the result of hostility, favoring other private interests or similar purposes, other than genuinely judging what would be best for the community.

THROUGH THE LOOKING GLASS: ANALYZING THE POTENTIAL LEGAL CHALLENGES TO FORM-BASED CODES

ELIZABETH GARVIN & DAWN JOURDAN*

I. INTRODUCTION: DOWN THE RABBIT HOLE

Alice was beginning to get very tired of sitting by her

* Elizabeth Garvin, Esq., AICP, Spencer Fane Britt & Browne LLP, is an attorney with a Master's Degree in Urban Planning who focuses on the drafting and revision of development regulations. She has worked with communities across the country to prepare regulatory updates. Prior to joining Spencer Fane, Elizabeth was the Director of Community Planning for HNTB Corporation in Kansas City. Dawn Jourdan is an Assistant Professor at the University of Florida. She holds a joint appointment with the College of Design, Construction, and Planning at the Levin College of Law. Previously, she held an appointment with the College of Architecture at Texas A & M University.

> sister on the bank, and of having nothing to do: once or twice she had peeped into the book her sister was reading, but it had no pictures or conversations in it, "and what is the use of a book," thought Alice, "without pictures or conversations?"[1]

Consider the last time you thumbed through a city's zoning ordinance. Even those who write and interpret zoning ordinances for a living know these documents pale in comparison to the magic created in Carroll's tale. Over time, efforts have been made to make these documents more accessible to the public by including tables and maps printed in bright colors. However, even the most highly trained planner, urban designer, or developer often struggles to ascribe meaning to the principles embedded in these codes (let alone use them to propose new, more beautiful forms of development). Members of the Congress on New Urbanism have sought to overcome the limitations associated with traditional zoning and subdivision regulations by introducting the form-based code. A form-based code is "'a regulatory approach designed to shape the physical form of development while setting only broad parameters for use.'"[2] Unlike conventional or Euclidean zoning (which begin with a determination of land use and then rely on that use for the remainder of the regulatory process), "form-based codes regulate development by building type, street type, location (character area), transect or ecozone."[3]

This Article seeks to contextualize the form-based code in planning history as a reaction to city planning efforts that have continuously stressed function over urban design. Further, the authors seek to describe the language of form-based codes and how this new tool might be used instead of traditional ordinances or alongside them. While the concept is too new to fully evaluate in terms of success, the authors seek to shed light on the potential legal challenges that may result from the introduction of form-based codes in cities where zoning laws have long dictated development processes.

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1. LEWIS CARROLL, ALICE'S ADVENTURES IN WONDERLAND 1 (D. Appleton & Co. 1927) (1865).

2. Jerry Weitz, *Form-Based Codes: A Supportive but Critical Perspective*, 3 PRACTICING PLANNER (2005), http://www.planning.org/practicingplanner/print/05fall/practitionersbookshelf.htm (citation omitted).

3. *See id.* (citation omitted).

II. FROM ONE REACTION TO ANOTHER: FORM, FUNCTION, FORM, FUNCTION . . .

In his classic book, *Cities of Tomorrow*, Peter Hall explores the evolution of the ideas central to modern city planning practice.[4] Hall begins his discourse with the state of cities during the Industrial Revolution—a period in history when unprecedented enterprise dictated urban form and a time when urban design had little relevance. Hall deems this period of urban development "The City of the Dreadful Night," citing deplorable living conditions beyond modern imagination.[5] Hall turns to John Ruskin to describe this period:

> [T]he great cities of the earth . . . have become . . . loathsome centres of fornication and covetousness—the smoke of their sin going up into the face of heaven like the furnace of Sodom; and the pollution of it rotting and raging the bones and the souls of the peasant people round them, as if they were each a volcano whose ashes broke out in blains upon man and upon beast.[6]

Reacting to such conditions, early pioneers of urban design suggested that regulation was necessary to ensure that the quest for further industrialization would not have such devastating effects on the built and natural environment. Zoning practices soon followed with the enactment of building codes and New York City's first ordinance in 1916.[7] When first introduced in the United States, the primary goal of zoning was to separate noxious uses—such as slaughterhouses, tanneries, and other nuisances—from residential or commercial areas. And, while zoning has evolved over time to cover a wide range of development issues (such as controls on height, lot size, building frontage, setback, lot coverage, and even floor-area ratio (FAR)), it has never strayed from its core function of separating different uses. Until recently, this typically resulted in local zoning regulations that specified separate residential, commercial, and industrial districts.

As zoning evolved, so did its partner process—subdivision. At

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4. *See* PETER HALL, CITIES OF TOMORROW (updated ed. 1996).

5. *See id.* at 14-46.

6. *Id.* at 13 (ellipses in original) (quoting JOHN RUSKIN, LETTERS TO THE CLERGY ON THE LORD'S PRAYER AND THE CHURCH (1880).

7. *See About NYC Zoning*, New York City: Department of City Planning, http://www.nyc.gov/html/dcp/html/zone/zonehis.shtml.

first, the purpose of a subdivision was simply to provide an efficient method to identify land for sale. Over time, however, and especially in the post-war period, subdivision has evolved into a tool for community planning. Eventually, communities became more aware of the overall impact of large subdivision developments and incorporated requirements into regulations specifying street design, infrastructure requirements (such as sewer and water), open space, and other site dedication. While these changes allowed communities to impose greater specificity for requirements than ever before in the look and functioning of subdivisions, they also started the process of limiting overall design options.

American zoning and subdivision practices, while effective for ensuring the separation of incompatible land uses, have been widely criticized. The bases for these criticisms vary. For example, some critics charge that zoning practices have created non-unique, sprawling cities. According to the neotraditionalists, the worst aspect of the continual use of unsound urban patterns is "the rigid manner in which planning regulates urbanist ideals in its implementation devices—the separation and spatial scattering of urban land uses that is endemic to the vast majority of zoning ordinances and subdivision regulations imposed in the United States."[8] One thing is true: traditional zoning practices continue to be devoid of details that would promote the notion that beauty in the built environment "would reflect in the souls of the city's inhabitants, inducing order, calm, and propriety therein."[9]

This is not to suggest that historical movements have not been made in order to bring beauty to our cities. Daniel Burnham, perhaps the greatest proponent of the City Beautiful movement, sought to bring together the order of zoning with the beauty of architecture.[10] The City Beautiful movement did not last, however. While a number of edifices from this period remain, the preference for functionalism over beauty has remained a foundational element of American city planning over the last century.

The history of urban planning has long been reactionary in nature, and proponents of urban design continuously challenge the ordinances they contend result in the overly zoned city. The New Urbanists receive significant attention for their push to return to traditional neighborhood development patterns, as demonstrated

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8. Andres Duany & Emily Talen, *Making the Good Easy: The Smart Code Alternative*, 29 FORDHAM URB. L. J. 1445, 1449 (2002).

9. WILLIAM H. WILSON, THE CITY BEAUTIFUL MOVEMENT 92 (1989); *see also* WILLIAM FULTON, THE NEW URBANISM: HOPE OR HYPE FOR AMERICAN COMMUNITIES 7-10 (1996).

10. *See, e.g.,* Daniel Burnham, Chicago Landmarks, http://www.cityofchicago.org/Landmarks/Architects/Burnham.html.

in the developments of Seaside and Celebration in Florida and the Kentlands in Gaithersburg, Maryland.

The traditional neighborhood development, revitalized by the current neotraditionalist movement,[11] is both a reaction to, and a departure from, the roots and current realities of conventional zoning and subdivision. Neotraditional developers seek to reintroduce a development layout that is reminiscent of traditional cities and residential districts, where pedestrian activity is maximized through mixed uses in a compact space and automobile use is consequently minimized.[12] In terms of regulations, this means:

1. Allowing a variety of uses in order to create vitality and bring many activities of daily living within walking distance of homes;
2. Fostering mixed residential density and housing types;
3. Stimulating infill and rehabilitation activity;
4. Developing contextual design standards that ensure new development responds to the typical architecture style of the city or region;
5. Creating compact, walkable centers and neighborhoods served by public transit;
6. Enhancing streetscape and civic life; and
7. Shaping metropolitan regions with public space, farmland, and natural areas.[13]

Some conventional zoning and subdivision regulations meet some or all of these goals, but many do not. Exasperated by the barriers conventional zoning and subdivision create, neotraditionalists advocate for local governments to "'[j]ust throw your existing zoning in the garbage"'[14] and start anew.

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11. For an excellent review of New Urbanism, see Robert Sitkowski, Address at the International Municipal Lawyers Association: The New Urbanism for Municipal Lawyers (April 12, 1999) (on file with author) *available by subscription at* http://www.imla.org/members/mlpaperindex/papers/s99sitkowski.htm.

12. CONGRESS FOR THE NEW URBANISM, AM. PLANNING ASS'N PLANNING ADVISORY SERVICE REPORT NO. 526, CODIFYING NEW URBANISM: HOW TO REFORM MUNICIPAL LAND DEVELOPMENT REGULATIONS 12-15 (2004) [hereinafter CODIFYING NEW URBANISM].

13. *Id.* at 15-23.

14. Peter Katz, *Form First: The New Urbanist Alternative to Conventional Zoning*, Nov. 2004, http://www.formbasedcodes.org/downloads/FormFirst.pdf.

III. THE LANGUAGE OF FORM-BASED CODES

A. New Jargon

When dealing with regulations like form-based codes that have their roots in neotraditionalism, it is necessary to learn a new language to describe familiar phenomena. The language of neotraditional development is a jargoned mix of architecture and planning terminology that intentionally does not follow current land use nomenclature. The language especially does not follow the naming used in any legal system. This lack of compliance with previous systems occurs because many of the original neotraditional projects were designed as subdivisions, and all of the New Urbanist issues (building placement, architectural style, location, and maintenance of open space) were handled through private covenants and deed restrictions. Those covenants and deed restrictions were labeled or relabeled with titles that either do not align with practitioners' expectations of a document given a particular title or do not reflect the hybrid legal nature of the document. Examples of relabeling or new titles include Regulating Plan (community-reviewed site plan) and TND Code (private covenants). These titles, given to documents between private parties, have caused confusion and reclassification as they move into the public sector:

> There is, however, confusion among many practitioners about the term "code" as used by Duany Plater-Zyberk & Company. This confusion stems from what appears to be a fundamental misunderstanding of the distinction between private covenants and public law. Professor Jerold Kayden, in moderating a panel at a recent conference held at the Harvard Design School, attempted to unravel much of this confusion, to no avail. Professor Kayden did, however, set the stage for Mr. Duany to articulate some definitions in his highly advanced model of what he terms "regulatory codes." These "codes" are, in reality, designed to be private covenants. Mr. Duany took the opportunity to explain his understanding of the difference between a "code" and an "ordinance," stating that the former implements the master plan and is not binding except by agreement. Ordinances, on the other hand, are codes that have been

"subjected to democracy."[15]

B. Different Approval Processes

In addition to using a new language and terminology, neotraditional development frequently blurs the lines of traditional approval processes. When thinking about creating or applying a regulatory process for a neotraditional project, municipal attorneys and planners can start by setting aside traditional regulatory classifications:

> Implementation of New Urbanism does not observe conventional distinctions between zoning, subdivision regulation, private deed covenant and restrictions, public and private design regulation, street design and improvement, and the layout, design, construction, and maintenance of a wide range of public improvements, including sidewalks, open spaces, plantings, utilities, transit systems, and public buildings.[16]

In reality, neotraditionalists are not as far away from conventional regulatory processes as they assert. Most communities have and use planned unit development ordinances, which provide a model for considering neotraditional development. It is helpful to explore the contents of a form-based ordinance and then return to the similarities with a planned unit development.

C. The Contents of a Form-Based Code

The goal of form-based codes is to be "prescriptive" rather than "proscriptive." This concept is woven through the regulatory approach. Put simply, "[t]he setback line [conventional] is proscriptive, specifying prohibitions. The build-to line [neotraditional] is prescriptive, *prescribing* what is expected."[17] Form-based codes are packed with specific instructions, details, and unique graphics and illustrations, the majority of which are geared toward the design of physical space. This is intended to rectify the problems with current regulations: "[t]he many words in conventional zoning

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15. Sitkowski, *supra* note 11, at 5-6.

16. CODIFYING NEW URBANISM, *supra* note 12, at 31.

17. VICTOR DOVER, ALTERNATIVE METHODS OF LAND DEVELOPMENT REGULATION (1996), *available at* www.spikowski.com/victor_dover.htm (report prepared for the city of Fort Myers Beach, Fla.).

codes are often incomprehensible to all but the legal experts; drawings can communicate much more clearly what is permitted under or sought by the code."[18] Overall, "the level of physical detail in a form-based code exceeds that of a conventional land-use plan,"[19] which has a directly related drawback in that a form-based code can be 'prohibitively expensive" to prepare for an entire community.[20] The advantage to this approach is that form-based codes are easy to understand and may be easier to use than conventional regulations.[21]

A conventional zoning ordinance is typically focused around chapters that describe districts (with uses listed), bulk regulations, supplemental standards, and definitions. The districts and use list (either laundry or matrix) is the heart of the regulations. While drafters and commentators vary on the number of mandatory elements to include in a form-based code, the generally recognized components are: (1) regulating plan, (2) building envelope standards, (3) definitions, and (4) architectural design standards.[22] Additionally, most form-based code drafters agree that a regulating plan is the heart of the process, with other elements included as needed by each community.[23]

1. Regulating Plan

A regulating plan is comparable to an area plan or a specific plan, falling more in the planning category than the regulatory category. A regulating plan has characteristics similar to a very detailed development plan and/or preliminary plat. The only difference is that creation of the regulating plan usually precedes development, whereas the development or plat is part of the approval process. Preparing a regulating plan usually involves a public process that starts with the identification of an overall vision for the area being planned and moves through a series of refinements until it reaches the level of plan detail required by the community. In addition to the regulating plan images, there are specific rules for the design of blocks and alleys, a hierarchy of building envelope standards, streetscape requirements, parking requirements, and instructions for the distribution of retail uses. These rules are drafted in a similar manner and with similar language to conven-

18. *Id*.
19. Philip Langdon, *The Not-So-Secret Code*, PLANNING, Jan. 2006, at 28.
20. *Id*. (internal quotation marks omitted).
21. *Id*.
22. *See* Robert J. Sitkowski & Brian W. Ohm, *Form-Based Land Development Regulations*, 38 URB. LAW. 163, 164-65 (2006).
23. *Id*.

tional regulations.

The Columbia Pike Special Revitalization District Form-Based Code provides an example of a regulating plan.[24] After Columbia Pike—once considered the "Main Street" of South Arlington, Virginia—began experiencing disinvestment and blight, the city and community undertook a neotraditional planning process. As part of this process, in 2003, the city created and adopted a form-based code. The Regulating Plan for the Columbia Pike code provides images of the various streets within the redevelopment area and identifies appropriate building and parking requirements along those streets.[25]

2. Building Envelope Standards (BES)

The building envelope standards section follows the regulating plan. Moving from a large picture of the overall area to a smaller picture of a specific site, the building envelope standards provide the regulatory requirements for the building itself. Because form-based codes are not formatted around the distribution of uses, the building envelope standards provide the everyday nuts and bolts of the regulatory process. Building envelope standards typically include a diagram and matrix of instructions that illustrate the development of a building on a site, including requirements for height, location on the site, building elements (for example, windows, doors, and porches), and uses.[26] A form-based code provides a use list; however, design decisions are more important than use determinations. A developer seeking development approval would need to show site compliance with the building envelope standards as the starting point of any review.

Many of the standards contained in the building envelope standards would also be included in conventional regulations, but the standards take on much greater importance in form-based codes. For example, height restrictions may be a static or even throw-away regulation (or completely missing in some instances), in conventional regulations. In a form-based code, however, build-

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24. Arlington, Virginia— Columbia Pike Form Based Codes, http://www.arlingtonva.us/Departments/CPHD/forums/columbia/current/CPHDForumsColumbiaCurrentCurrentStatus.aspx (last visited Apr. 13, 2008).

25. Arlington, Virginia— Columbia Pike Form Based Codes, http://www.arlingtonva.us/Departments/CPHD/forums/columbia/current/pdf/fbc_streetscape_0205.pdf (last visited Apr. 13, 2008).

26. Jason T. Burdette, Form-Based Codes: A Cure for the Cancer Called Euclidean Zoning? 40-42 (Apr. 19, 2004) (unpublished Master's major paper, Virginia Polytechnic Institute and State University), *available at* http://scholar.lib.vt.edu/theses/available/etd-05122004-113700/unrestricted/BurdetteFINALmajorpaper.pdf.

ing height is a considerable standard. "A maximum number of floors . . . is set to ensure that a building does not overwhelm its neighbors. Unlike use-based zoning, form-based codes also specify a minimum height in order to maintain a proper street wall."[27] A similar change is made in building or setback lines. Form-based codes guide the exact location of the structure on the site, while conventional regulations delineate those areas where the structure cannot be located. This could mean the difference between homes that line a residential street and homes that are located in a variety of places on the lot.

In contrast to conventional regulations, form-based codes require an examination of use down the road, after the building particulars have been considered. This stands in stark contrast to conventional regulations, where the proposed use determines the requested zone district (and sometimes whether or not that district is consistent with its surroundings) that serves as the basis for the entire approval process. Uses in form-based codes can be distributed both horizontally and vertically. Further, each use may include specific qualifiers. For example, the Atlanta Regional Commission provides the following qualifier for permitted building and lot types:

> [S]torefront/mixed use up to 6,000 SF of first floor area; this may be increased up to 65,000 SF of first floor area within 2000 feet of a transit stop, freeway interchange, or the intersection of two major thoroughfares. (To be classified as mixed-use, a building must have at least two occupiable stories, and at least 50% of the habitable area of the building shall be in residential use. The remainder shall be in commercial use).[28]

3. Definitions

Given the effort of neotraditionalists to distance form-based codes from conventional regulations, the definition section can be very important to a community making the switch from conventional zoning to form-based. As one commentator noted: "[i]tems included in the definitions section are used in very specific ways,

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27. Katz, *supra* note 14.

28. TRADITIONAL NEIGHBORHOOD DEVELOPMENT (TND) MODEL ORDINANCE AND DESIGN STANDARDS 3, http://www.dca.state.ga.us/intra_nonpub/Toolkit/ModelOrdinances/TND_ModOrd.pdf (last visited Mar. 8, 2008).

and may differ from common usage interpretations."[29] In addition to site and building layout terminology, there may also be architectural design terminology. Some sample design definitions are provided below:

- Connectivity ratio - the number of street links divided by the number of nodes or ends of the links.
- Link - that portion of a street that is defined by a node (i.e. intersection) at each end or at one end.
- Node - refers to an intersection with another link or the terminus of a link.[30]

Legally speaking, the definitions section may be the essential part of the adopted regulations. If there are deviations from common interpretation of an ordinance term, it becomes critical to the long-term health of the ordinance that the specific definition be provided. The study of law teaches that if undefined terminology ends up in court, it may be Merriam Webster who supplies the final definition.[31] It is also critical that the many constituencies of a specific regulation all understand and have a common view of the terminology. Many conventional ordinances are faulted for being overly legalistic in their writing style. Form-based codes attempt to change this language but do not necessarily move to plain English. Instead, the reader must wade through architectural and planning terminology, which does not always carry the same meaning to an engineer, developer, attorney, or judge. It is in the definition section, therefore, where the architectural and planning terminology merges with the legal mindset.

While the definition list need not be lengthy, it must include all design items that could be subject to multiple interpretations. For the city of Austin, Texas, this meant a definitional section in the Traditional Neighborhood District[32] that included descriptions of the various "green" concepts such as the following:

> (5) GREEN means an open space available for unstructured recreation, its landscaping consisting of

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29. Burdette, *supra* note 26, at 42.

30. Prince William County, Virginia, Comprehensive Plan: Town Center and Neotraditional Design, § 1101.03, *available at* http://www.pwcgov.org/docLibrary/PDF/004752.pdf.

31. *See, e.g.,* Amoco Prod. Co. v. S. Ute Indian Tribe, 526 U.S. 865, 874 (1999) (determining the plain meaning of the word "coal" by consulting a dictionary); United States v. Sherburne, 249 F.3d 1121, 1126 (9th Cir. 2001) (stating that resorting to a dictionary definition is permissible to determine the plain meaning of a term).

32. AUSTIN, TEX., CITY CODE, § 25-3-4 (2007).

> grassy areas and trees.
> (6) GREENBELT means a series of connected open spaces that may follow natural features such as ravines, creeks, or streams.
>
> . . .
>
> (9) OPEN SPACE includes squares, plazas, greens, preserves, parks, and greenbelts.
> (10) PARK means an open space, available for recreation, its landscape consisting of paved paths and trails, some open lawn, trees, open shelters, or recreational facilities.[33]

That is not to assert, however, that form-based codes do not also carry some of the same drawbacks as their conventional counterparts, (or that the drafters do not sometimes share the same bad habits).

4. Architectural Design Standards

Architectural design standards took hold in many communities long before the neotraditional movement and have a growing body of case law tracking their successes and failures. Interestingly, in light of this fact, some communities and form-based code drafters avoid including design standards—presumably because they are wary of litigation. This perception arises because "architectural standards also prove to be very subjective."[34] There now appears to be some debate over the necessity of architectural design standards. The authors of *Codifying New Urbanism* provide a "some regulation is necessary" rationale:

> While architectural style need not be prescribed, the Charter [of New Urbanism] principles assert "architecture and landscape design should grow from local climate, topography, history, and building practice," thus avoiding the monotony of conventional suburban development and creating places of character and distinction. Regulations should be responsive to context at two levels: site-specific and regional.[35]

With a slightly different spin, another leading New Urbanist prac-

33. *Id.*
34. Burdette, *supra* note 26, at 43.
35. CODIFYING NEW URBANISM, *supra* note 12, at 20.

titioner finds that this is really a more locally-determined issue: "some communities—master-planned developments, special retail districts, historic districts, among others—may want to exercise a higher level of control over the appearance of individual buildings."[36]

Architectural design standards are regulations that provide specific information about the architectural look of a building. They can range in specificity from general (for example, building materials should be earth-tone in color) to extremely particular (for example, buildings located along Main Street shall incorporate materials that range in color from Pantone 134 to 156 or directly match the existing color of a historic structure located within 100 feet of the building subject to these regulations). Specific design standards may be used to regulate building materials, styles, and details along with building elements such as walls, windows, and roofs, among other design elements.[37] Design standards can also include information about landscaping and streetscape. From a legal perspective, these standards may be abused as they may not be consistent amongst all applicants since they are negotiated between the planning staff (or design review committee) and an applicant for development approval.

Typically, once new conventional regulations are drafted, they are adopted and put into use. However, with form-based codes, there is a great deal of uncertainty about abandoning conventional zoning which has been used for decades. Both legal and procedural questions arise, neither of which have clear cut answers this early in the process. A recent article on form-based codes notes as a caveat: "All this is not to say that a form-based code solves every problem—or that conventional zoning, with its regulation of uses, is rendered unnecessary by well-shaped buildings and streets. Even in the areas regulated by a form-based code, the local government typically exerts some control over uses."[38] For these reasons, communities are taking a variety of approaches to putting their form-based codes to work.

5. The Minimal Approach—Working With Existing Regulations

At the most minimalistic end of the spectrum, some communities use existing regulations to review and adopt neotraditional development. This typically takes the form of either planned unit

36. Katz, *supra* note 14, at 2.
37. Sitkowski & Ohm, *supra* note 22, at 165.
38. Langdon, *supra* note 19, at 29.

development (PUD) approval, the creative combination of a number of existing districts, or a series of variances. This approach is condemned by the neotraditionalist community. However, Professor Daniel Mandelker, a noted land use scholar and significant contributor to the APA Growing Smart process, remarks that "'TND is not the antithesis of the PUD but is the next generation of it.'"[39] But even with a PUD on the books, not all communities will be able to review and approve neotraditional development.

The assorted types of planned unit development regulations can be loosely grouped into two categories. The first category is PUD regulations that work like a master-variance process. In these regulations, the property is usually assigned a "base" district from the regular zoning districts, and the applicant is permitted specific modifications of the regulations. For example, an applicant may be allowed to reduce standard setbacks by up to 70%, reduce standard lot size by 20%, or increase overall density by 15%. The result of this PUD approach tends to be more clustered (and clearly tied to a cluster zoning concept) and sometimes more dense than would otherwise be allowed, but overall the development pattern is similar to the development allowed under the standard zoning district.

The second category of PUD regulation is approved through a standard-based approach. Here, applicants submit a site plan that is measured against a series of standards established in the regulations. The standards can range from general—"[t]he plan is consistent with good land planning and site engineering design principles, particularly with respect to safety"[40]—to specific—"[t]he design of the PUD is as consistent as practical with the preservation of natural features of the site such as flood plains, wooded areas, steep slopes, natural drainage ways, or other areas of sensitive or valuable environmental character."[41] In contrast to master-variance PUD regulations, standard-based regulations tend to result in a more negotiated and less uniform development pattern.

Master-variance PUD provisions are different from standards-based PUD regulation as they relate to neotraditional development. Communities with master-variance PUD provisions will probably have a difficult time reviewing and approving neotraditional development through that process. Typically, there is not sufficient flexibility to address the various development compo-

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39. Sitkowski, *supra* note 11, at 7.

40. UNIFIED GOVERNMENT OF KANSAS CITY, KANSAS, 27-276 REZONING: PLANNED DISTRICT, http://www.wycokck.org/assets/F3917192-91FA-4E43-8EE5-9ACC9E049975.pdf.

41. City of Warrenville, Business Development: Planned Unit Development, http://www.warrenville.il.us/b_bus-dev_pud.aspx (last visited Mar. 9, 2008).

nents of a neotraditional project. For communities with standards-based PUD regulations, the question is not whether the process is too limited, but whether the standards in place are sufficient to guide development in the key areas of site layout, building placement and dimension, and architectural design. Indeed, it is likely that something called traditional neighborhood development can be approved through the PUD process, but there is some question about whether it is the real thing. The key connection for neotraditional regulation is between the site-specific plan and the regulatory process. Requiring the creation of an area plan or specific plan in addition to the PUD approval may help provide a more detailed picture of appropriate development types and patterns. If this can be combined with design guidelines, it may be possible to provide sufficient guidance for neotraditional development in a standards-based PUD regulation.

6. Amending the Existing Regulations

When is a more substantial amendment to the existing regulations required? If local regulations are a partial or complete barrier to neotraditional planning goals and policies, it may be time to amend the regulations. Piece-meal project approval is stressful for staff and local officials, is expensive for developers, and may expose the community to legal liability. The goal, as neotraditionalists expound, is to make the good easy. Land use regulations should provide a clear path to approval of development that the community wants to encourage.

If an amendment to the existing conventional regulations proves necessary to act more affirmatively in moving to form-based codes, some communities adopt a "phased implementation" approach. The form-based code is adopted and made applicable to "those areas where there is the greatest threat of poor quality development and/or the greatest opportunity for new urbanism to succeed."[42] Other communities chose "strategic regulatory intervention," where existing conventional regulations are revised to incorporate neotraditional provisions. This might include "altering use provisions, dimensional regulations, and supplementary regulations."[43] Sufficiently extensive regulatory intervention may lead to hybrid regulations that permit a community to function under a form-based code with a conventional zoning base or format in

42. Joel Russell, City of Palo Alto Zoning Ordinance Update: New Urbanism Discussion Paper (2002), (unpublished paper, on file with the city of Palo Alto, CA).

43. CODIFYING NEW URBANISM, *supra* note 12, at 33.

place.[44] Other communities adopt form-based codes as "parallel" codes, providing an optional regulatory approach that may include incentives including expedited approvals and permits for development if chosen.[45] Finally, a limited number of communities replace conventional zoning and subdivision regulations in their entirety with form-based codes.[46]

IV. FORM-BASED CODES: POTENTIAL LEGAL IMPLICATIONS

Unlike its oft-litigated predecessor, conventional zoning, there is very little case law addressing the many regulatory aspects of form-based codes. Yet, from the vast source of case law on zoning, it is possible to anticipate the types of legal issues which may generate challenges to the ways in which form-based codes are currently written.

A. Authority

With a few limited exceptions, authority to adopt form-based codes may actually be the first non-issue that arises. The 1926 Standard State Zoning Enabling Act (SSZEA)[47], the current basis for many existing zoning regulations around the country, does not rule-out a form-based approach in favor of a use-based approach.[48] SSZEA provides the following "Grant of Power" provisions:

- height, number of stories, and size;
- lot coverage;
- yards, courts, and other open spaces;
- density; and
- location and use of structures and land.[49]

This grant closely reflects many of the key regulatory tenets of form-based codes. Some states, attempting to eliminate this issue,

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44. *Id.* Examples include San Antonio, Texas and Milwaukee, Wisconsin. *Id.*

45. *Id.* Examples include Austin, Texas; Columbus, Ohio; and Dade County, Florida. *Id.*

46. *Id.* Examples include Cornelius, Davidson, and Huntersville, North Carolina. *Id.* "This approach can be the most costly and time-consuming, but it is also the most thorough and effective way to accomplish New Urbanism." *Id.*

47. ADVISORY COMM. ON ZONING, U.S. DEP'T OF COMMERCE, A STANDARD STATE ZONING ENABLING ACT (1926).

48. Sitkowski & Ohm, *supra* note 22, at 167; *see also* David W. Owens, *Local Government Authority to Implement Smart Growth Programs: Dillon's Rule, Legislative Reform, and the Current State of Affairs in North Carolina*, 35 WAKE FOREST L. REV. 671 (2000).

49. Sitkowski & Ohm, *supra* note 22, at 166 (citing ADVISORY COMM. ON ZONING, *supra* note 47).

have explicitly authorized the adoption of form-based codes. These states include California, Pennsylanvia, Wisconsin, and Connecticut,[50] but activity in over three dozen states indicates that change—at least in terms of authority—is on the way.[51] Where this will lead is yet to be seen, but it is fair to guess that

> the amount of executive and legislative interest in the topic of land use reform at the dawn of a new century is an indication that reliance on the planning and zoning enabling acts modeled on 1920s model legislation from the U.S. Department of Commerce will not survive in the new century. [52]

B. Aesthetic Controls—Substantive and Procedural Due Process

1. Substantive Due Process

Design guidelines can prove to be a legal minefield and, as noted above, some communities seeking to adopt form-based codes shy away from architectural design guidelines. Guidelines are a combination of law and design administered by committees and applied to a property owner seeking development approval. The number of imaginable problems with this scenario is measurable and is exacerbated by the potential for litigation, similar to zoning. "Both began in a climate of hostile or at least skeptical legal opinion; both enjoyed rapid growth before constitutional problems were solved; and the form and content of each have been affected by drafting timidity dictated by unresolved legal questions."[53]

As with many zoning cases, the typical cause of action to challenge aesthetic regulations is substantive due process. At the outset, aesthetic regulations enjoy all of the presumptions afforded to zoning in general, including: (1) the regulation has a presumption of validity, with the burden of proof on the challenging party; (2) the "regulation will be upheld if its validity is reasonably debatable;" and (3) the "regulation will withstand judicial scrutiny, unless it is clearly arbitrary and capricious."[54] This "confirm[s] a

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50. *See* Robert Sitkowski, Anna Breinich & Brian Ohm, *Enabling Legislation for Traditional Neighborhood Development Regulations*, 53 LAND USE L. & ZONING DIG., Oct. 2001.

51. *See generally,* Patricia E. Salkin, *The Smart Growth Agenda: A Snapshot of State Activity at the Turn of the Century*, 21 ST. LOUIS U. PUB. L. REV. 271, 271 (2002).

52. *Id.* at 272 (footnote omitted).

53. 2 ANDERSON'S AMERICAN LAW OF ZONING § 9.76, at 359-60 (Kenneth W. Young ed., 4th ed. 1996) (footnotes omitted).

54. Jeffrey W. Strouse, Note, *Redefining Trademark Alteration Within the Context of*

judicial posture favoring the validity of zoning laws." [55]

With this in mind, the substantive due process test[56] has a well-recognized two-step analysis: (1) "whether the regulation advances a legitimate governmental interest;" and (2) whether "the regulation is a reasonable means to achieve that goal."[57] If the state follows the modern rule for aesthetic regulations,[58] the first prong is met and the analysis focuses on the reasonableness of the regulation—"the due process test for validity is no longer whether a regulation is based primarily or exclusively on aesthetics but whether the regulation itself is reasonable."[59]

Due process challenges can be brought either facially or as applied. Facial claims can be premised on the failure of the regulation to further its stated purpose[60] or where a void-for-vagueness claim is presented.[61] As applied, the challenge is premised upon the arbitrary and capricious application of the regulation to the use of the property.[62] In some jurisdictions, reasonableness is determined by a balancing of interests, weighing private loss against the public benefit of regulation.[63]

Because some of the terms incorporated into aesthetic controls

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Aesthetic-Based Zoning Laws: A Blockbuster *Dilemma*, 53 VAND. L. REV. 717, 726-27 (2000).

55. *Id.* at 726.

56. *See* Annette B. Kolis, Note, *Architectural Expression: Police Power and the First Amendment*, 16 URB. L. ANN. 273, 284 n.41 (1979) ("Procedural due process claims are . . . unsuccessful because adequate procedures in the review of architectural design are generally provided by municipalities.").

57. Mark R. Rielly, *Neo-Traditional Neighborhood Development: Community by Design*, 24 ZONING & PLAN. L. REP. 57, 60 (2001); *see also* 29 AM. JUR. 3D. *Proof of Facts* § 491, at § 11 (1995) ("Challenges to the reasonableness of the regulation require evidence that the restriction is not reasonably related to a legitimate governmental purpose, i.e., that the regulation is arbitrary and capricious.").

58. This means allowing aesthetics as the sole basis for regulations without requiring some other basis such as preservation of property values. *See* Elizabeth A. Garvin & Glen S. LeRoy, *Design Guidelines: The Law of Aesthetic Controls*, 55 LAND USE L. & ZONING DIG. 3, 5 (2003).

59. 2 EDWARD H. ZIEGLER, JR., ET AL., RATHKOPF'S LAW OF ZONING AND PLANNING § 16:5 (4th ed. 2001).

60. S*ee, e.g.*, Rhodes v. Gwinnett County, 577 F. Supp. 30 (N.D. Ga. 1982) (enjoining enforcement of a county ordinance that allowed only one business sign on business premises); City of Nichols Hills v. Richardson, 939 P.2d 17, 19 (Okla. Crim. App. 1997) (stating that "we find this ordinance, on its face, does not promote aesthetics as alleged").

61. *See* City of West Palm Beach v. State, 30 So. 2d 491 (Fla. 1947) (finding the challenged portion of the zoning ordinance impermissibly vague); Reid v. Architectural Bd. of Review, 192 N.E.2d 74, 77 (Ohio Ct. App. 1963) (refusing to strike down the challenged ordinance on vagueness grounds).

62. *See* Sackson v. Zimmerman, 478 N.Y.S.2d 354, 356 (N.Y. App. Div. 1984) ("In a word, the planning board's denial must be based on evidence more substantial than a generalized feeling that neighbors should have the aesthetic pleasure of viewing a mansion on the central portion of a lot some four times the size of their own.").

63. ZIEGLER ET AL., *supra* note 59, § 16:16; *see also* Tennessee v. Smith, 618 S.W.2d 474 (Tenn. 1981).

are unique to design professionals, they can be easily misunderstood by the general public (and are even subject to differing interpretations among design professionals). Nevertheless, they are frequently used in design guidelines. Because of their subjective meanings, these terms must both be defined and placed in context in order to avoid confusion. Relevant terms include: physical continuity, design harmony, unique character, environmental theme, articulation, modulation, rhythm, and human scale. Where there is confusion about the meaning of the terminology, there is room for a vagueness challenge. To survive a vagueness challenge, the "ordinance must enable a person of 'common intelligence, in light of ordinary experience' to understand whether contemplated conduct is lawful."[64]

The term "harmony" seems to be of particular attraction to courts, with judicial opinions both upholding and striking the term. In *Village of Hudson v. Albrecht, Inc.*, [65] the design ordinance instructed the board of review to "take cognizance of the development of adjacent, contiguous and neighboring buildings and properties for the purpose of achieving safe, harmonious and integrated development of related properties."[66] The board was to make this determination taking into account "design, use of materials, finished grade lines, dimensions, orientation and location of all main and accessory buildings."[67]

The lawsuit was the result of the board's attempt to stop the expansion of a portion of a shopping center that had not been approved by the board.[68] The property owner challenged the design controls as unconstitutionally vague.[69] The court, however, found otherwise, holding that the existence of other standards in the ordinance defined "harmonious" and required the project to be integrated with vehicular and traffic patterns, providing sufficient criteria to guide decision making.[70]

Compare this result to *Anderson v. City of Issaquah*,[71] one of the most recent and frequently cited design review cases, where the ordinance required among other things:

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64. Nadelson v. Township of Millburn, 688 A.2d 672, 675 (N.J. Super. Ct. Law Div. 1996) ("The determination of vagueness must be made against the contextual background of the particular law and with a firm understanding of its purpose.").

65. 458 N.E.2d 852 (Ohio 1984).

66. *Id.* at 854.

67. *Id.*

68. *Id.* at 853-54.

69. *Id.* at 854.

70. *Id.* at 856-57.

71. 851 P.2d 744 (Wash. Ct. App. 1993).

> 1. Buildings and structures shall be made compatible with adjacent buildings of conflicting architectural styles by such means as screens and site breaks, or other suitable methods and materials.
> 2. Harmony in texture, lines, and masses shall be encouraged.[72]

The applicant sought to build a commercial structure for several retail tenants. The building described by the court "was to be faced with off-white stucco and was to have a blue metal roof. It was designed in a 'modern' style with an unbroken 'warehouse' appearance in the rear, and large retail style windows in the front."[73] The surrounding area included a Victorian residence serving as a visitors center, an Elk's hall, "a veterinary clinic with a cyclone fenced dog run," a bank built in the "Issaquah territorial style," and "a gasoline station that looks like a gasoline station."[74]

The board subjected the applicant to various revisions to the building design, including one commissioner's personal observations from a drive down the main street on which the building was to be located, and the comment by another committee member that he wondered whether the applicant had no other option but to start again from scratch.[75] However, the court held otherwise, giving the following summary of the ordinance:

> [W]e note that an ordinary citizen reading these sections would learn only that a given building project should bear a good relationship with the Issaquah Valley and surrounding mountains; its windows, doors, eaves and parapets should be of "appropriate proportions", its colors should be "harmonious" and seldom "bright" or "brilliant", its mechanical equipment should be screened from public view; its exterior lighting should be "harmonious" with the building design and "monotony should be avoided." The project should also be "interesting."[76]

According to the court, "these code sections 'do not give effective or meaningful guidance' to applicants, to design professionals, or to

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72. *Id.* at 746.
73. *Id.* at 747.
74. *Id.* (internal quotation marks omitted).
75. *Id.* at 748.
76. *Id.* at 751 (footnote omitted).

the public officials of Issaquah."[77] The court found that "[t]he words employed are not technical words which are commonly understood within the professional building design industry. Neither do these words have a settled common law meaning."[78]

These cases show that courts have taken one of two approaches to undefined terms within design guidelines: (1) invalidating the ordinance on vagueness grounds or (2) upholding the ordinance after finding the term defined elsewhere in case law or other appropriate sources. For example, in *City of Mobile v. Weinacker*,[79] the court held that without definitions of terms such as "modern materials" and "modern architectural design" an aesthetic ordinance lacked "ascertainable criteria, requirements, or guidelines for approval" and was therefore impermissibly vague and ambiguous.[80] Compare this, however, to *State. v. Wieland*,[81] where the court looked to Iowa to borrow a definition of "neighborhood" and to Washington for a definition for "substantially" in order to uphold an ordinance.[82]

2. Procedural Due Process

Due process has two faces. While substantive due process focuses specifically on issues relating to the clarity and scope of regulations, procedural due process seeks to determine the presence or absence of safeguards that prevent local decision-making bodies from making decisions in an unfair manner. Fairness with respect to the application of the law is at the heart of procedural due process. As aptly described in *Kenville Realty Corp. v. Board of Zoning Appeals*,[83] the "court must attempt to strike a balance between 'strait-jacketing' public officials and ensuring rule of law rather than by caprice."[84]

The courts will deem a local decisionmaking process fair if the local governing body has exercised all of the necessary safeguards required by law. Pursuant to traditional interpretations of procedural due process, city codes typically require public bodies to implement safeguards which entitle affected parties to notice of hearings held to consider such decisions, the right to the presentation

77. *Id.*
78. *Id.* at 752.
79. 720 So. 2d 953 (Ala. Civ. App. 1998).
80. *Id.* at 955.
81. 69 N.W.2d 217 (Wis. 1955).
82. *Id.* at 223-24.
83. Kenville Realty Corp. v. Bd. of Zoning Appeals, 265 N.Y.S.2d 522 (N.Y. Sup. Ct. 1965).
84. *Id.* at 524.

and rebuttal of evidence, and the issuance of final decisions containing findings of both fact and law.[85] However, the extent to which property owners are entitled to due process depends at least in part on whether the review powers of the local decision-making body are classified as legislative, administrative, or quasi-judicial. The final and perhaps most critical entitlement under due process is the right of appeal, either to a higher administrative or legislative body and then to the courts or directly to the courts.[86] In the presence of such procedural safeguards, courts will defer to the decisions of local governing bodies so long as the decisions are reasonable.

The question remains: are form-based codes more susceptible to procedural due process claims than zoning ordinances? The answer to this question is likely yes. The main obstacle for form-based codes comes from a governing body's stated reasons for decisionmaking. Zoning ordinances, by their nature, are specific as to how a structure may be built and used in a given location. Thus, when a decisionmaker denies an application for a building permit, variance, or rezoning under a traditional zoning ordinance, the denial is tied to a specific provision in the ordinance which disallows either the structure or the use. Decisionmakers have little discretion in the presence of such specific rules and, as a result, their decisions will typically stand unless proven arbitrary or capricious.

Form-based codes, however, are not intended to be as rigid. These codes act more like guidelines but provide little guidance as to what must be permitted or prohibited. While the flexibility of these codes may improve the overall mixture and quality of development in a given transect, too much discretionary power may be vested in the hands of decisionmakers who have very limited working knowledge of the architectural, urban design, or planning principles upon which these ordinances are derived. For example, a city might seek to draw a transect around an area containing a city's historic downtown. A problem arises if one of the governing principles of the transect is to promote new development that is architecturally appropriate to the downtown's historic character. While many members of local decisionmaking bodies might "know it when they see it," it is unlikely that such decisionmakers will be able to reduce what they know to a legally defensible final decision. A planning staff with special expertise in architecture or urban design may be able to assist local decisionmakers in overcom-

85. DAVID H. CALLIES ET AL., CASES AND MATERIALS ON LAND USE 501 (3d ed. 1999).

86. Daniel R. Mandelker, *Delegation of Power and Function in Zoning Administration*, 1963 WASH. U. L.Q. 60, 80-82 (1963).

ing this problem; however, the discretionary nature of these codes still leaves cities open for litigation, particularly when one interpretation permits a development proposal but is used to deny a similar one.

C. Takings

In *Dallen v. City of Kansas City*,[87] the Missouri Court of Appeals struck down an ordinance requiring property owners seeking to rebuild a gas station to rebuild in conformance with an overlay zone. The overlay zone, also known as the Main Street Corridor Special Review District, established a "build-to line" that would have required the new gas station building to be located at a ten-foot setback from the property line.[88] The property owners claimed that this was impossible, but the terms of the overlay district would not have permitted the property owner to rebuild in accordance with the terms of the underlying district.[89] The court found the two regulations (overlay and underlying) in conflict and found the overlay district to be confiscatory and unconstitutional and therefore invalidated the entire overlay.[90] This decision included not only the ten-foot setback, but also "the regulation of building materials, the parking regulations and the restrictions applying to signs, building entrances and windows."[91] Despite the holding's outward appearance, it was probably not an indictment of form-based zoning in Missouri. This likely extends to Kansas City, where planning staff is busy putting the finishing touches on a new hybrid zoning code to replace the 1954 version.[92]

So if this is not the taking issue, what is? The issue probably exists in the communities that adopt form-based codes requiring all development to be mixed use. If an applicant has a small parcel—a single lot of infill or minimal acreage of new development—where, for a variety of reasons the market will not support mixed use, then is it possible that the property has been inversely condemned by the regulation? Inverse condemnation could be possible in many situations, for example, where the development is in a greenfield and commercial uses will not be viable for some time, or when the infill is in a neighborhood that is converting from resi-

87. 822 S.W.2d 429 (Mo. Ct. App. 1991).
88. *Id.* at 433.
89. *Id.*
90. *Id.*
91. *Id.* at 434.
92. *See Zoning Ordinance and Subdivision Regulations Revision Process*, City of Kansas City, Missouri, http://www.kcmo.org/planning.nsf/devmgt/ZonOrdRevisProces? (last visited May 10, 2008).

dential to commercial and there is no demand for additional residential space, or when the site is so small that it is not really feasible to build a structure large enough to house multiple uses. In a worst-case scenario, the applicant is not allowed to build. This could be a *Lucas*[93] taking, where the owner is deprived of all economic benefit or productive use of the land.[94] In a slightly less drastic scenario, the applicant is allowed to build but is required to allocate or reserve space for future uses. Would this be a physical taking following *Loretto*[95] and *Nollan*,[96] or a categorical taking following *Dolan*?[97] This line of reasoning will probably develop as form-based codes mature.

D. Spot Zoning

A possible challenge to spot zoning exists for communities that choose to review neotraditional development through their existing regulations using a series of variances. Spot zoning arises in situations where there is "the rezoning of a single parcel or a small area to benefit one or more property owners rather than carry out an objective of the comprehensive plan."[98] Having a neotraditional plan or policies in place may help because "courts look to the community's comprehensive plan, or to other planning studies, in determining whether the rezoning is, in fact, consistent with local land use policies."[99] Overall, courts will consider:

1. the size of the parcel subject to rezoning;
2. the zoning both prior to and after the local government's decision;
3. the existing zoning and use of the adjacent properties;

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93. Lucas v. S.C. Coastal Council, 505 U.S. 1003 (1992).

94. BRIAN BLAESSER & ALAN WEINSTEIN, FEDERAL LAND USE LAW AND LITIGATION § 3:19 (2006).

95. Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419 (1982) (concluding that a permanent occupation of property is always a taking).

96. Nollan v. Cal. Coastal Comm'n, 483 U.S. 825 (1987) (holding that a regulation must substantially advance a legitimate state interest with sufficient connection between the interest and the regulation in order to justify the imposition).

97. Dolan v. City of Tigard, 512 U.S. 374 (1994) (determining that there must be an essential nexus between a condition imposed and the legitimate state interest).

98. Rielly, *supra* note 57, at 61 (internal quotation marks omitted) (quoting JOHN R. NOLAN, WELL GROUNDED: SHAPING THE DESTINY OF THE EMPIRE STATE 446 (1999)).

99. Robert C. Widner, *Understanding Spot Zoning*, 13 PLANNING COMM'RS J. (1994) *available at* http://www.plannersweb.com/articles/wid060.html.

4. the benefits and detriments to the landowner, neighboring property owners, and the community resulting from the rezoning; and
5. the relationship between the zoning change and the local government's stated land use policies and objectives.[100]

An understanding of local judicial willingness to find spot zoning may be helpful before starting a neotraditional approval process that will be based on variances.

E. The Nature of a Regulating Plan

According to the logic behind form-based codes, the plan is the key to the entire process. The plan should, therefore, correspond directly to the regulations. In some states, regulatory consistency with the comprehensive plan is mandatory, for example, the plan and regulations should work together and mirror one another.[101] In some states, however, the plan and the regulations only need to be "in accordance with" one another.[102] This leaves room for interpretation, and typically judicial opinions in each state define the level of closeness required by the phrase "in accordance with."[103]

This leads to some technical questions. First, is the plan adopted as part of the regulations? If this means the regulating plan, the answer is yes. There is law that holds that a comprehensive plan can be contained in a "zoning ordinance if the zoning ordinance is comprehensive in scope and establishes 'an orderly method of land use regulation for the community.'"[104] If so, then is the regulating plan amended in the manner prescribed for regulatory amendment? And what if the jurisdiction has legal review procedures for comprehensive or master plans (for example, annual review or five-year review), does the regulating plan have to comport with these requirements? And if the plan is not adopted as part of the regulations, but rather as a separate area or community plan, can the regulations deviate from the plan? This list continues, highlighting some of the issues caused by the cross-over of planning and regulating. As one commentator notes, neotradi-

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100. *Id*.

101. Brian W. Ohm, *Let the Courts Guide You: Planning and Zoning Consistency*, 22 ZONING PRACTICE 1 (2005).

102. *See, e.g.* Trail v. Terrapin Run, 943 A.2d 1192, 1204-05 (2008).

103. *Id*. at 1226.

104. PETER W. SALSICH, JR. & TIMOTHY J. TRYNIECKI, LAND USE REGULATION: A LEGAL ANALYSIS AND PRACTICAL APPLICATION OF LAND USE LAW 40 (1998) (quoting Bell v. City of Elkhorn, 364 N.W.2d 144, 148 (Wis. 1985)).

tional regulation may be "new tricks for an old dog."[105]

F. The Use of Graphics and Concerns Regarding Copyrights

Unlike most older conventional regulations, form-based codes are graphics laden. This may be a welcome inclusion for those who negotiate their way through the regulatory process, but it may be problematic in a legal venue. As a practical matter, graphics such as drawings, renderings, and photographs should be clearly labeled as either illustrative or regulatory.[106] If graphics are regulatory, it is wise to provide written guidance to match the intent of the illustration, both in the form of labels on the illustration and text with the regulation.

In the best of all worlds, each jurisdiction will have created individual graphics and illustrations that are specifically representative of that community. Realistically, however, a limited number of communities with great resources will take this approach, and others will search creatively to illustrate their regulations at a lower overhead level. With the advent of the internet, it is possible to gather all kinds of illustrations from various locations. Historically, public codes have not been copyrighted information, and some form-based code and related New Urbanist initiatives have included copyrighted materials. It is important to either gain permission for the use of the graphics or to find something available in the public domain.

V. CONCLUSION

In the quest to build cities which are both beautiful and functional, urban planners have sought to implement a variety of land use and design related tools which emanate from historic zoning codes. The form-based code is the newest tool in the evolution of this pursuit for better city planning. While it is unlikely that the form-based code will entirely replace conventional zoning, there exists a strong likelihood that this regulatory tool will have a role in shaping and reshaping cities across the United States. Communities employing this tool must understand, however, that the form-based code does not offer a cure for all urban problems; nor will the implementation of these codes be free from dispute. Careful consideration of possible legal challenges to the form-based

105. Joel P. Dennison, Comment, *New Tricks for an Old Dog: The Changing Role of the Comprehensive Plan Under Pennsylvania's "Growing Smarter" Land Use Reform*, 105 DICK. L. REV. 385 (2001).

106. CODIFYING NEW URBANISM, *supra* note 12, at 15.

code is the only way to ensure that these new picture-laden codes for land development become more than just imaginative stories about a possible new approach to urban development.

THE TDR SIREN SONG: THE PROBLEMS WITH TRANSFERABLE DEVELOPMENT RIGHTS PROGRAMS AND HOW TO FIX THEM

ARI D. BRUENING[1]

I. INTRODUCTION

In planning the future of any metropolitan area, it is important to plan for and create mechanisms to preserve targeted open space areas. There are many tools available for preserving open space and environmentally sensitive areas, some more effective than

1. Associate at O'Melveny & Myers LLP; J.D. 2005, Harvard Law School. Appreciation is given to Robert Grow for his invaluable ideas and insight and to Drury Rossbacher for her tremendous research assistance.

others. Transferable development rights (TDR) programs to date have by and large been ineffective tools for preserving open space[2]—and may, in many cases, even hinder open space preservation efforts. The ineffectiveness of traditional TDR programs raises a considerable danger that, in reliance on the TDR scheme, resources may be shifted away from bonds or other mechanisms to fund land preservation. By the time it becomes clear that the TDR program is ineffective, land prices may have escalated to the point at which it becomes extremely expensive to acquire key environmental areas and many areas targeted for acquisition may have been developed in the meantime. Moreover, typical TDR schemes act as a tax on density, thereby potentially increasing the development footprint of the metropolitan area and actually *reducing* the amount of open space.

There are many reasons why traditional TDR programs are not effective tools for preserving open space. First, very few TDR programs actually result in a significant number of transfers of development rights. Although a few programs since the 1980s have preserved thousands of acres of land, most programs have been unsuccessful, resulting in very few transfers of development rights.[3] A 2003 study identified 111 TDR programs across the country designed to preserve land, of which forty-six programs—many of which had existed for decades—had preserved less than five acres.[4] Only thirty-four of the programs, or less than one third, had preserved more than 100 acres, and only ten had preserved more than 1000 acres.[5] Recent years have seen a remarkable proliferation of TDR schemes,[6] but there is no indication that these programs are seeing any more success than previous schemes.

Second, even if traditional TDR programs create successful markets for transfers of development rights, they generally will

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2. This article focuses on the use of TDRs to protect open space and environmental features, although many TDR schemes are used to preserve historic structures and protect agricultural and forest lands. *See* John B. Bredin, *Transfer of Development Rights: Cases, Statutes, Examples, and a Model*, 2000 APA National Planning Conference, Apr. 18, 2000, http://design.asu.edu/apa/proceedings00/BREDIN/bredin.htm (last visited Mar. 27, 2008).

3. "As of 1983, it was estimated that there were more articles on TDR than there were transactions." John C. Danner, *TDRs—Great Idea but Questionable Value*, 65 Appraisal J. 133, 136 (1997) (quoting Peter Pizor, Washington State Growth Management Program, *Transfer of Development Rights, Evaluating Innovative Techniques for Resource Lands*, Part 2:12 (Nov. 1992)).

4. *See* Rick Pruetz, Beyond Takings and Givings 169-450 (2003).

5. *See id*.

6. In 1987, there were 48 TDR programs in the United States. *See* Danner, *supra* note 3, at 136 & n.5. A 1997 study found 107 TDR programs. *See* Bredin, *supra* note 2. As of 2003, there were at least 134 such programs, of which 111 were designed to preserve land. *See* Pruetz, *supra* note 4.

not result in a desirable pattern of open space preservation. Because the programs rely on landowners' willingness to sell development rights, there is no guarantee that the most important environmental or open space areas will be preserved. Instead, those landowners whose land is farthest from existing urban areas, and therefore in the least danger of being urbanized, are most likely to sell development rights. If, on the other hand, the program is structured to designate only smaller, more sensitive areas as sending areas for transferable credits, the supply of credits shrinks and the market for such credits is less likely to work effectively.

Third, by making density more expensive, traditional TDR schemes can actually decrease densities and thereby result in more rapid land consumption than would allowing higher densities without purchase of TDRs. The more compact the development patterns in which new growth occurs, the less open space that new growth will consume through urbanization. By forcing developers to purchase TDRs in order to develop at densities above certain levels, typical TDR schemes increase the cost of, and therefore disincentivize, high density. Thus, traditional TDR programs will ordinarily result in *less*, not more, open space.

Finally, traditional TDR programs, by forcing new high-density development to bear an inequitable burden of preserving open space, are unfair and potentially unconstitutional. Requiring those who develop at higher densities to purchase TDRs is akin to assessing an impact fee or requiring a dedication of property. In either case, U.S. Supreme Court case law suggests that the fee or dedication must have a "rough proportionality" relationship to the impact of the new development.[7] It would be very difficult, however, to show that the TDR purchase requirement is proportional to the impact of new higher-density development. Rather than spread the cost of open space preservation equitably among all residents, the traditional TDR scheme places the bulk of the burden on new high-density development, imposing a cost on new residents usually far in excess of the amount contributed by existing residents to open space preservation. This burden is placed disproportionately on new high-density housing, rather than on low-density housing, despite the greater impact of low-density housing on open space.

Given the numerous flaws in traditional TDR schemes, one might assume that such programs are beyond rescue. There is, however, an alternative to the traditional TDR scheme that has the potential to remedy most or all of the defects of traditional

7. *See* Dolan v. City of Tigard, 512 U.S. 374, 391 (1994).

TDR programs. The primary problem with the traditional TDR program is that it taxes the wrong kind of development. Instead of taxing high-density development (exactly the kind of development that ought to be encouraged if preserving open space is the goal), TDR programs should instead tax *low-density* development. Requiring low-density— rather than high-density—development to purchase development rights is more likely to result in actual transfers of development rights, will encourage higher-density development, and, in accordance with constitutional law and fairness principles, tax the type of development that has the greatest impact on open space. Moreover, even if no transfers actually occur under this new type of TDR program, the increased densities that result will reduce the metropolitan area's urban footprint and increase the amount of open space that remains undeveloped.

II. THE TRADITIONAL TDR SCHEME

A. Market-Based Obstacles to Transfers of Development Rights

The traditional TDR program works by creating a "receiving zone" and a "sending zone."[8] Receiving zones are generally designated in areas where the government desires development at relatively high densities.[9] In order to develop at densities above a set level (the "base zoning" or "base units"), a developer within a receiving zone must purchase transferable credits from one or more properties within the sending zone. The sending zone is generally designated in an area where the government would like to limit development.[10] Properties within the sending zone are allocated transferable credits, which need not be equivalent to the underlying zoning for the property.[11] Once development credits have been transferred off of a property in the sending zone, that property is then preserved through a conservation easement or similar mechanism.

TDR programs thus offer an apparently elegant way to preserve open space without (1) falling afoul of the Takings Clause of the Fifth Amendment, or (2) expending significant government

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8. *See* Julian Conrad Juergensmeyer, et.al., *Transferable Development Rights and Alternatives After* Suitum, 30 Urb. L 441, 444-48 (1997) *reprinted in* David L. Callies, et.al., Land Use 516 (4th Ed. 1999).

9. *Id.*

10. *Id.*

11. For example, a rural property in the sending zone might be zoned for development at one dwelling unit per ten acres, but is allocated two dwelling units per acre that can be transferred from the property to the receiving zone.

money to purchase land. Essentially, the traditional TDR program requires a developer who wants something—density—from the government, to fund the preservation of land in exchange for that something. The government thus uses its power to control land use through zoning to leverage developers into preserving land.

Unfortunately, of the TDR programs that have been in existence long enough to be properly evaluated, very few have seen substantial numbers of transactions.[12] Of 111 land preservation-oriented TDR schemes identified in 2003, 46 had preserved less than 5 acres, 77 had preserved less than 100 acres, and 101 had preserved less than 1000 acres.[13] Montgomery County, Maryland and the New Jersey Pinelands have preserved over half of the total acres preserved through TDRs across the country.[14] In 1997, John Danner identified sixteen TDR programs in Florida and reported that nine of the programs had seen no transactions, five had experienced only a few sales over ten years or more, and two had resulted in "periodic sales of TDRs."[15]

Why have TDR programs by and large failed? Obstacles to successful implementation of traditional TDR programs are described below.

1. Allocation of Supply and Demand

TDR programs rely on a well-functioning market in which transferable credits are bought and sold in sufficient quantities to preserve an adequate amount of open space. Unfortunately, it is difficult to set the base units and transferable units available in both the receiving and the sending areas in a way that creates a functioning market.

On the demand side, it is important to structure the receiving area so that developers will be willing to purchase credits and will offer sufficient compensation that landowners in the sending area will be willing to sell. Montgomery County, home of one of the few extremely successful TDR schemes, was careful to structure its program "so that a developer's extra costs for credits are more than offset by the increases in allowable density in the receiving ar-

12. *See* Danner, *supra* note 3, at 135 ("Historically, most municipalities across the country have found it difficult to translate the TDR concept into an efficient operating system.").

13. *See* Pruetz, *supra* note 4.

14. *See id*.; *see also* American Farmland Trust, Farmland Info. Ctr. Fact Sheet: Transfer of Development Rights (2001)(providing a compilation of TDR acreage data in table entitled "Local Governments with TDR Programs for Farmland, 2000").

15. Danner, *supra* note 3, at 141.

eas."[16] To this end, the base zoning for the receiving area must be sufficient to "ensure development is economically viable."[17] On the other hand, the base density allowed must be set far enough below market demand that developers have an incentive to purchase TDRs.[18]

On the supply side, the program should provide enough transferable credits to landowners in sending areas to induce them to sell (but not so many that very little land is preserved), while also creating sufficient demand for credits so that landowners are adequately compensated for sales. It is key to structure the transferable credits "so that they accurately reflect the development potential of the preserved land."[19]

Essentially, it is a difficult balance to ensure that credits are cheap enough that developers will make use of them, but expensive enough that landowners will sell them.[20] It has been recommended that the ratio of sending credits to potential receiving credits should be at least two to one,[21] but it is important to tailor each program carefully to the development market and political climate of the locality in question.[22] Effective TDR schemes generally involve continual government monitoring and adjustment of the program.

2. Inconsistent and Flexible Zoning

If needed density is easily available through mechanisms other than TDRs, there will be little market demand for the credits. For example, if incentive zoning, zoning amendments, and variances are easily obtainable in receiving areas, TDRs are unlikely to be purchased.[23] Similarly, if landowners in sending areas can achieve

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16. Robert A. Johnston & Mary E. Madison, *From Landmarks to Landscapes: A Review of Current Practices in the Transfer of Development Rights*, 63 J. Am. Plan. Ass'n 365, 369 (1997) (internal citation omitted).

17. Bredin, *supra* note 2.

18. *Id.*; Jason Hanly-Forde et al., *Transfer of Development Rights Programs: Using the Market for Compensation and Preservation*, Cornell University, http://government.cce.cornell.edu/doc/pdf/Transfer%20of%20development%20rights.pdf (last visited Mar. 2, 2008).

19. Johnston & Madison, *supra* note 16, at 375.

20. *See* Rick Pruetz, *Recent Trends in TDR*, 2002 APA National Planning Conference Proceedings, Apr. 16, 2002, http://conserveland.org/lpr/download/12999/pruetz_tdr.pdf ("If TDRs are not affordable, developers will not buy them because TDR costs will make the TDR option less profitable than the baseline option. Similarly, if the TDR ordinance does not allocate enough TDRs to sending areas, the property owners may decline to sell their TDRs.").

21. Hanly-Forde et al., *supra* note 18.

22. *See* Pruetz, *supra* note 20.

23. Jerold S. Kayden, *Market-Based Regulatory Approaches: A Comparative Discussion of Environmental and Land Use Techniques in the United States*, 19 B.C. Envtl. Aff. L. Rev. 565, 577 (1992).

significant development densities through similar mechanisms, they are unlikely to sell development rights.

3. Transaction Costs

TDR transaction costs can be very high, discouraging potential transactions. These costs include "time-consuming negotiations over price, preparation of purchase and sale agreements and other documents, and closings. Valuation difficulties plague buyers and sellers alike,"[24] creating problems both for landowners negotiating transfers and for governments trying to avoid takings,[25] partly due to the lack of a functioning market that indicates appropriate prices for TDRs. Governmental regulation of transfers can impose steep costs in scrutinizing and monitoring individual transactions.[26] Moreover, transactions will only occur "if a seller and a buyer are simultaneously ready to sell and develop."[27] Inability to obtain title insurance and financing for transferred development rights presents another difficult obstacle.

The program should be structured so that it "is easy for the municipal staff to administer and the public to understand with designated personnel to manage and track the program."[28] Government-created TDR "banks" can help minimize transaction costs by setting minimum purchase prices to resolve valuation and marketability problems, "guaranteeing loans that use TDRs as collateral, and purchasing the TDRs outright."[29] However, there is no evidence that a TDR bank is a cure-all for transaction cost problems.

4. Public Outreach and Education

One of the most important factors in TDR program success is an extensive effort to educate the public about the existence and nature of the TDR scheme.[30] This effort could include public workshops and mailings, as well as assistance of program staff, who can

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24. *Id*. at 578.

25. Sarah J. Stevenson, *Banking on TDRs: The Government's Role as Banker of Transferable Development Rights*, 73 N.Y.U. L. Rev. 1329, 1331 (1998). It is possible that if landowners in sending areas do not receive adequate compensation for their development rights, their property has been taken without just compensation in violation of the Fifth Amendment. *See, e.g.,* Jennifer Frankel, *Past, Present, and Future Constitutional Challenges to Transferable Development Rights*, 74 Wash. L. Rev. 825, 837-41 (1999).

26. Kayden, *supra* note 23, at 578-79.

27. Stevenson, *supra* note 25, at 1331.

28. Danner, *supra* note 3, at 135.

29. Stevenson, *supra* note 25, at 1331-32 (footnote omitted).

30. *See* Danner, *supra* note 3, at 135.

aid developers and landowners in navigating the legal aspects of the program.[31]

B. Traditional TDR Programs: Undermining Open Space Preservation?

In the rare case in which a traditional TDR program is successful, there are usually better ways to accomplish the program's goals. When, as is more often the case, a traditional TDR program is unsuccessful, it can actually undermine open space preservation goals. Because it is virtually impossible to limit regional growth without harming quality of life so that the region is no longer a desirable place to live, preserving regional open space is best done by directing growth into compact development patterns.[32] Traditional TDR schemes, by conditioning density increases on purchases of development rights, increase the expense of higher-density development, thereby likely limiting density to a level below what the market would otherwise support. If the program does not successfully create a market for transfers, it will just cap densities and result in a potentially significant increase in land consumption as compared to simply increasing the densities that are allowed without requiring the purchase of TDRs. Even in a successful TDR market, as in any functioning market, there will be buyers unwilling to buy and sellers unwilling to sell at the market price; therefore, even a functioning traditional TDR market will limit the achievable densities and result in less, not more, open space preservation than would occur if higher densities were permitted without the purchase of TDRs. This effect can be mitigated by reducing the size of the receiving area or increasing the allowable density under the base zoning, but there will be an adverse impact on the TDR market because of reduced demand for the TDRs.

Furthermore, enactment of a TDR scheme may lead to complacency towards open space preservation and diversion of resources to other needs. In reliance on the TDR scheme, governments and others may direct efforts and resources away from open space preservation. Because the TDR scheme likely will not lead to preservation of significant open space, and indeed will cause lower densities and therefore more development of open space, the reliance will be misplaced. While land acquisition efforts are delayed,

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31. *See* Hanly-Forde et al., *supra* note 18.

32. Infill and redevelopment may mitigate some of the need to develop open space to accommodate new growth, but the market generally will only support a certain amount of infill and redevelopment for a variety of reasons, and political opposition to "densifying" existing neighborhoods is often high.

land prices may escalate, increasing the financial hurdles involved in preserving sensitive lands. In addition, land that is targeted for preservation may be consumed by development as time passes.

Although a traditional TDR scheme is not likely to be useful in increasing the amount of open space preserved, it may be argued that in limited cases a traditional TDR scheme can be used to permanently preserve key environmental landscapes. Unfortunately, the program probably will not result in a desirable pattern of open space preservation unless the sending area is limited to key environmental areas. Indeed, those landowners whose land is farthest from existing urban areas, and therefore in the least danger of urbanization, will have the greatest incentive to sell development rights, due to the low development value of their property. It is possible to limit sending areas to important environmental areas, but the more the sending area for TDRs is limited, the less likely it is that a strong market will be created, since an inadequate supply will likely limit market activity.

C. Fairness and Legality of Traditional TDR Schemes

Another, but not unrelated, problem with traditional TDR schemes is that they place the burden of permanently preserving open space solely or primarily on new higher-density development. This result is not only inequitable, it is potentially illegal. Federal constitutional law places strict limits on governmental exactions of property, and state law often limits the imposition of impact fees.[33] Whether traditional TDR requirements are more akin to exactions or impact fees, they seem to run afoul of the law, and are unfair in any case.

1. Federal Constitutional Law Governing Exactions

The Supreme Court has ruled that conditions placed on property owners as conditions of development approvals must bear an "essential nexus" to the impact of the new development[34] and have a "rough proportionality" to that impact.[35] Although a local government can likely show an essential nexus between open space preservation and the loss of open space through new development, it will be much harder to demonstrate that the government has made the necessary "individualized determination" that the TDR

33. *See infra* Part II.C.1-3.
34. Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 837 (1987).
35. Dolan v. City of Tigard, 512 U.S. 374, 391 (1994).

purchase requirement "is related both in nature and extent to the impact of the proposed development" under the rough proportionality test.[36]

It is unclear whether the government would have to show only that the entire proposed development's impact is roughly proportional to the required TDR purchase or that the incremental increased density is roughly proportional to the purchase.[37] In the latter case, it would be very difficult for the government to argue that five units on one acre, as opposed to two units on that same acre, have an impact roughly proportional to the preservation of three acres (or much more, depending how the sending area TDRs are structured) of open space. The government may have an easier time showing that the entire five units have an impact roughly proportional to the preservation of three (or more) acres, but even that demonstration is unlikely to be persuasive, given that only one acre is being developed. In fact, the impact to regional open space will be lower in the case of higher-density development. If the urban area grows by ten units in one year, development at five units per acre will consume only two acres of open space (assuming no infill or redevelopment), whereas development at two units per acre will consume five acres of open space.

The only saving argument for the government would appear to be that *Nollan* and *Dolan* do not apply to TDR schemes. Some courts and commentators have read the cases to apply only to conditions that involve (1) required land dedications or other conditions involving forfeitures of constitutional rights, as opposed to fees; and (2) conditions applied through administrative, rather than legislative, procedures.[38] Nevertheless, there is little reason to think that *Nollan* and *Dolan* would not apply to a TDR program. Indeed, "[c]ourts are increasingly rejecting the idea that *Nollan* and *Dolan* can be limited to their facts."[39]

The Takings Clause of the Fifth Amendment to the U.S. Constitution exists "to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be

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36. *Id*.

37. *See* Frankel, *supra* note 25, at 850 n.234.

38. *See, e.g.*, J. David Breemer, *The Evolution of the "Essential Nexus": How State and Federal Courts Have Applied* Nollan *and* Dolan *and Where They Should Go From Here*, 59 Wash. & Lee L. Rev. 373, 382-95 (2002) (summarizing judicial opinions discussing the applicability of *Nollan* and *Dolan* in cases involving monetary exactions and legislatively-enacted conditions); Matthew P. Garvey, *When Political Muscle is Enough: The Case for Limited Judicial Review of Long Distance Transfers of Development Rights*, 11 N.Y.U. Envtl. L.J. 798, 818-19 (2003) (arguing that *Dolan* does not and should not apply to TDR schemes).

39. Breemer, *supra* note 38, at 407.

borne by the public as a whole."[40] Requiring the purchase of TDRs for those who seek higher densities could be used "to force a landowner to shoulder a disproportionate share of a public burden just as easily as a demand for a dedication of real property," whether the TDR requirement is characterized as a fee or an exaction.[41] Indeed, traditional TDR programs could be characterized as a way to force a small subset of people—new residents of higher-density development—to shoulder the burden of preserving significant amounts of open space, a burden that in all fairness should be shared equally by all residents, or at least should also be shared by residents of new lower-density development. Insofar as the existing residents have not funded the preservation of open space to the same extent that new residents are asked to do so, the burden on the new residents seems particularly unfair and unrelated to the actual impact of the new development, particularly when low-density development is exempted from the TDR purchase requirement. Fairness would seem to dictate that any increase in the acreage of preserved open space per resident or dwelling unit should not be funded solely or primarily by the new residents of high-density development.

Although it is true that TDR programs are generally established legislatively rather than administratively, "[i]t is not clear why the existence of a taking should turn on the type of governmental entity responsible for the taking."[42] "From the landowner's point of view, there is nothing magical about the fact that a law that takes property applies equally to a large number of people."[43] Insofar as a governmental entity is seeking to unfairly shift to new residents of high-density development a burden that in all fairness should be borne by the public as a whole, it is not clear why legislative enactment should save such an action from unconstitutionality. Indeed, new residents are by and large unrepresented in government legislatures, and it may be easy for existing residents to shift the cost of social programs such as open space preservation to new residents who are generally unable to protect themselves within the political process.

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40. *Dolan*, 512 U.S. at 384 (quoting Armstrong v. United States, 364 U.S. 40, 49 (1960)).

41. Breemer, *supra* note 38, at 397-98 (footnotes omitted).

42. Parking Ass'n of Ga., Inc. v. City of Atlanta, 515 U.S. 1116, 1117-18 (1995) (Thomas, J., dissenting from denial of certiorari).

43. Breemer, *supra* note 38, at 403.

2. State Law Governing Impact Fees

Laws in many states provide extra support for the illegality of traditional TDR programs. For example, Florida law requires that monetary exactions, or impact fees, pass a rigorous "dual rational nexus test" in which the government "must demonstrate reasonable connections between (1) the need for additional capital facilities and the growth in population generated by the subdivision and (2) the expenditures of the funds collected and the benefits accruing to the subdivision."[44] Traditional TDR schemes are very similar to impact fees in that they require developers to pay for the right to develop. It is unlikely that a government enacting a traditional TDR program could show both that the cost of the TDRs is related to the need for open space generated by the new development and that the preserved open space directly benefits the new development.

Similarly, Utah state law requires that impact fees "must not require newly developed properties to bear more than their equitable share of the capital costs in relation to benefits conferred."[45] It seems unlikely that the benefit to residents of high-density development of open space preservation is, to any significant extent, proportionately higher than the benefit to other residents, including the residents of new lower-density housing.

Thus, while it may be possible to argue that traditional TDR programs are not subject to the *Nolan* and *Dolan* analysis because they are more akin to impact fees than to exactions of real property, the law governing impact fees in many states does not support the legality of traditional TDR programs.

3. Federal Substantive Due Process Standards

A further legal problem surrounding traditional TDR programs is that it can be argued that either the base zoning of the program is overly restrictive or the purchase of TDRs allows overly intensive development.[46] Zoning has traditionally been intended to create a well-ordered community in which intensity and types of use are planned according to the characteristics of different areas of the community, whereas traditional TDR schemes leave to developers the decision as to the upper limit on intensity of use, without

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44. Volusia County v. Aberdeen at Ormond Beach, L.P., 760 So. 2d 126, 134 (Fla. 2000) (internal quotation marks omitted) (quoting St. Johns County v. Ne. Fla. Builders Ass'n, Inc., 583 So. 2d 635, 637 (Fla. 1991)).

45. Banberry Dev. Corp. v. S. Jordan City, 631 P.2d 899, 903 (Utah 1981).

46. *See* Frankel, *supra* note 25, at 841-43.

reference to the characteristics of particular areas. If the density allowed with the purchase of TDRs is compatible with the characteristics of a given area, then the base zoning is overly restrictive for that area. If, on the other hand, the base zoning is not overly restrictive for an area, then the higher density allowed with the purchase of TDRs must be harmful to the health and safety of the community. This use of the zoning power may arguably be violative of federal substantive due process standards that require zoning to be exercised reasonably,[47] and is inconsistent with traditional zoning concepts.

D. Summary

Given the significant questions about the fairness, legality, and effectiveness of traditional TDR schemes, governments are well advised to look elsewhere for mechanisms to protect open space. To the extent that a government's goal is to protect as much open space as possible, that government would do best by providing incentives, as opposed to disincentives, for density. To the extent that the goal is to permanently preserve specific sensitive areas, TDRs may be useful, but the government must be careful to structure the program so that it is successful, fair, and constitutional. Given that it may be very difficult, if not impossible, to arrange the program in such a manner, the best way to preserve the sensitive areas may be to spread the cost evenly among all residents, rather than forcing new development to bear a disproportionate burden of preserving open space.

III. AN ALTERNATIVE TDR CONCEPT

In a nutshell, the practical, legal, and equitable problems with traditional TDR schemes can be boiled down to the statement that they tax the wrong people to pay for open space preservation. If the goal is to preserve open space, taxing higher density development is counterproductive because it disincentivizes the very type of development that will reduce urban footprints and lead to more undeveloped land. Similarly, in order to be fair and legal, a TDR scheme should place burdens on development and new residents in proportion to their impact, yet it is higher density development that will reduce the impact of growth on open space by reducing the amount of land consumed by new development.

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47. *See* Village of Euclid v. Ambler Realty Co., 272 U.S. 365, 395 (1926); *see also* Frankel, *supra* note 25, at 842 (summarizing *Village of Euclid*, 272 U.S. at 395).

The solution would seem to be to reverse the TDR program so that low density—rather than high density—is taxed to pay for open space preservation. Thus, the base zoning for an area would have a minimum density, as opposed to a maximum density (although a maximum density could be used as well), and the purchase of TDRs would be required in order to develop at densities lower than the base minimum density. For example, densities below three units per acre could require purchase of one transferable credit per unit subtracted from the base minimum, with one transferable credit allocated to each open space acre desired to be protected.

Shifting the TDR system to tax lower-density rather than higher-density development seems to solve or mitigate many of the problems with and obstacles to traditional TDR schemes discussed above. The following sections discuss the relationship of the proposed alternative TDR program with the various issues discussed above in connection with traditional TDR schemes.

A. Market-Based Obstacles to Transfers of Development Rights

The alternative TDR concept may mitigate many of the market-based obstacles to transfers of development rights. In many, if not the vast majority, of the regions of the country, developers and homebuilders have tended toward lower-density products for a variety of reasons, including financability, market demand, easier approvals, lower development and infrastructure costs, and developer familiarity.[48] Higher-density products may be unfamiliar and seen as more risky. Adding a TDR scheme's tax onto the costs of higher-density development may be the final straw that prevents developers and homebuilders from shifting toward higher-density products, whereas developers and homebuilders may be more likely to actually pay the TDR tax on low-density development,

48. *See* Christopher B. Leinberger, *The Need for Alternatives to the Nineteen Standard Real Estate Product Types*, Places J. 25 (Jul. 1, 2005) *available at* http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1947&context=ced/places (asserting that the market has focused on nineteen standard product types that "almost guarantee[] low-density sprawl."); David Rusk, *Growth Management: The Core Regional Issue*, *in* Reflections on Regionalism 78, 78 (Bruce Katz ed., 2000) ("Urban sprawl is consuming land at almost three times the rate of population growth."); Michael S. Carliner, *Comment on Karen A. Danielson, Robert E. Lang, and William Fulton's "Retracting Suburbia: Smart Growth and the Future of Housing,"* 10 Housing Policy Debate 549, 550-51 (1999) ("Even where higher densities theoretically are permitted, builders generally find it easier to obtain regulatory approval for low-density projects than for higher density ones, and they generally encounter fewer regulatory costs and delays for construction of any kind at the urban fringe than in cities or close-in suburbs. . . . Surveys and marketplace experience show that, below some personal threshold, home buyers will only accept a smaller lot as a last resort.").

thereby causing the TDR program to work.

Moreover, the alternative TDR program more easily facilitates a governmental TDR bank. In such an alternative program, the government could simply charge a developer an impact fee for low-density development, and then use the proceeds to purchase sensitive lands. In a traditional TDR scheme, however, there may be insurmountable legal hurdles to charging an open space impact fee that increases for higher-density development.[49] For example, under the Florida law cited above, it is difficult to argue that higher-density development has a greater impact on open space than does lower-density development.[50]

The ability in an alternative TDR program to use impact fees to create a bank for open space preservation avoids many, if not all, of the market-based obstacles to traditional TDR programs discussed above. Although it will be important to set the fee at appropriate levels and to pay appropriate amounts for preserved land, there is no need to ensure that the supply and demand balance is exactly right to make transactions occur. Similarly, transaction costs are greatly diminished for both developers and those who are willing to sell development rights, since the unfamiliar TDR transaction is eliminated and replaced by more traditional impact fees and outright purchase of development rights. Moreover, public outreach and education is not as important because there are no private transactions that the government needs to encourage; instead, the government is directly involved in charging the impact fee and purchasing the development rights.

B. The Alternative TDR Program: Incentivizing Open Space Preservation

One elegant beauty of the alternative TDR program is that, even if it does not work, meaning that no TDR transactions occur, the governmental jurisdiction employing the program will have successfully preserved open space. If no developers purchase TDRs (or pay impact fees) under the alternative program, it follows that no developers are developing at low densities. The higher density development that occurs puts more new growth on less land, reduces the urban area's footprint, and increases the amount of open space that remains undeveloped.[51]

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49. A traditional TDR scheme, even without the impact fee component, is potentially unconstitutional and illegal, as discussed above. Shifting the program to an impact fee program, however, highlights the legal problems with the program.

50. *See supra* Part II.C.2.

51. There may be other benefits to increasing the amount of higher-density develop-

If, on the other hand, the TDR program is somewhat or very successful in encouraging TDR transactions, it will thereby permanently preserve some open space. In addition, the tax on low-density development will undoubtedly lead to a higher average density than would otherwise occur, thereby again reducing the urban footprint and increasing the amount of undeveloped open space.

Another benefit of the alternative TDR system is that, because a governmental jurisdiction can structure the program as an impact fee program in which the government acts as a bank, the government can ensure that the expenditure of money for land acquisition is targeted towards prioritized lands that are sized and located in appropriate ways to protect key species and other landscape features. In the traditional TDR scheme, on the other hand, the government is at the mercy of the market as to which lands are actually preserved.

C. Fairness and Legality of Alternative TDR Schemes

Although an alternative TDR program could run afoul of federal constitutional law or state law if, for example, the TDR requirement or impact fee is excessive, it is possible to structure the program to meet federal and state legal requirements in that the TDR requirement or fee is proportional to the actual impact of the new development on open space.

1. Federal Constitutional Law Governing Exactions

As discussed above, conditions placed on property owners as conditions of development approvals must bear an essential nexus to the impact of the new development and have a rough proportionality to that impact. Whether the program is a traditional TDR scheme or an alternative TDR system, the governmental jurisdiction can likely show that there is an essential nexus between open space preservation and the loss of open space through new development. An alternative TDR program, however, is much more likely to meet the rough proportionality requirement because the TDR or fee requirement increases for the type of development that has a higher, rather than a lower, burden on regional open space.

For example, if an urban area increases by 1000 households in

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ment, ranging from reduced infrastructure costs to increased housing choices and lower housing costs.

a given year, an average density for new development of two units per acre will require 500 acres of new development to accommodate the new growth. That could mean 500 acres of open space lost to new development.[52] If, on the other hand, the average density for new development is five units per acre, only 200 acres will be needed to accommodate the growth, saving 300 acres, with a potential net savings of 300 acres of open space. Thus, the rough proportionality test would seem to favor a higher open space fee or exaction for low-density development than for high-density development. This is not to say that *any* level of fee for low-density development will pass constitutional muster, but rather that the concept of increasing the TDR requirement for low-density development is more likely to be constitutional than the traditional TDR scheme. The governmental jurisdiction will still need to carefully calibrate the TDR requirement or fee to ensure that it is roughly proportional to the actual impact of the new development on open space.

2. State Law Governing Impact Fees

An alternative TDR program is much more likely to pass muster under state impact fee laws than is a traditional TDR scheme. Under Florida law, for example, it will likely be possible to show that the need for open space preservation is reasonably connected to the population growth generated by the new development. A ten-acre subdivision that accommodates fifty people will have a greater effect on regional open space than will the same ten-acre subdivision that accommodates 500 people. Moreover, because it is possible in an alternative TDR system for the government to actually direct the expenditure of funds for open space preservation, it will likely be easier to ensure that the expenditure of the open space fee collected creates benefits accruing to the new development from which the fee was collected.

3. Federal Substantive Due Process Standards

An alternative TDR program seems less likely than a traditional TDR scheme to run afoul of federal substantive due process standards. Whereas under a traditional TDR scheme it is arguable that the governmental zoning authority has deliberately lim-

52. Infill and redevelopment could reduce the amount of acreage required to accommodate the new growth. Thus, infill and redevelopment projects probably should not face the same TDR requirements as do greenfield projects.

ited base zoning well below the carrying capacity of the land in order to exact open space preservation from developers, under an alternative TDR program the government can plausibly argue that the base minimum density has been established to maximize efficiency of infrastructure expenditures and reduction of overall urban footprint. The government will then allow a developer to build at lower densities than the base minimum, but it will require the developer to fund the preservation of open space (and potentially infrastructure as well) to offset the impact of the lower-density development.

IV. CONCLUSION

Sometimes the most elegant solutions are the simplest solutions. Despite its original promise to preserve open space at no cost to existing residents, the traditional TDR scheme has not fulfilled that promise. Perhaps partly because of the lack of success of such programs, their legality and fairness has not fully been explored to date, but it is clear that there are substantial questions in these areas. Moreover, the incentive structure of traditional TDR programs is diametrically opposed to their stated purpose of preserving open space.

The elegant solution may be too obvious to have been noticed. Essentially, the problem is that we have been taxing the wrong kind of development. If the goal is to reduce the urban footprint of our metropolitan areas and retain more open space, the solution seems to be staring us in the face: tax the very kind of development that is causing the problem in the first place.

INFRASTRUCTURE AND THE LAW: FLORIDA'S PAST, PRESENT AND FUTURE

JULIAN CONRAD JUERGENSMEYER*

I. INTRODUCTION

In the 1960s, Florida's local governments began to experiment with ways in which to shift responsibility for funding infrastructure from the community in general (for example, themselves) to the development community. The result has been that, for nearly fifty years, Florida has been the laboratory and battlefield for the struggle to legally require new development to partially or totally fund major items of infrastructure needed to service it as a prerequisite for obtaining development permission. This Article will discuss the development of infrastructure funding techniques—particularly in Florida—as well as the current status of the law in regard to those techniques and will then predict and advocate the future evolution of these concepts.

The emphasis on infrastructure availability as a precondition for obtaining development permission is the major characteristic of most growth management programs. The Ramapo, New York program and the litigation over it[1] was perhaps the beginning of the

* Professor and Ben F. Johnson, Jr. Chair in Law, Georgia State University; Ad-

growth management movement, and some would label it the first growth management program and the first "growth management" judicial decision. Under the Ramapo plan, a point system was established based on the availability and proximity of infrastructure. Applicants for development permission had to have a requisite number of points before they could obtain development approval.

In recent years, growth management has evolved into smart growth.[2] Even though smart growth goes beyond growth management and adds emphasis on design and quality of life, it continues to emphasize—or perhaps it is better to say *assumes*—the availability of necessary infrastructure. It also broadens the meaning of infrastructure through its emphasis on preservation of natural and cultural resources and a full range of transportation, housing, and employment options. Furthermore, the development of the concurrency requirement,[3] sometimes called "adequate public facilities requirements," which straddles growth management and smart growth programs, further emphasizes the importance of developer infrastructure funding requirements in current legal and planning practice.

II. INFRASTRUCTURE FUNDING: FLORIDA'S PAST AND PRESENT

With the help of others, I have written much[4] about Florida's

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junct Professor in City and Regional Planning, Georgia Institute of Technology; Professor of Law emeritus, University of Florida; A.B., J.D., Duke University.

1. Golden v. Planning Bd. of Town of Ramapo, 285 N.E.2d 291 (N.Y. 1972). Professor Robert Freilich was the architect of the program and has discussed the program at length in ROBERT H. FREILICH, FROM SPRAWL TO SMART GROWTH: SUCCESSFUL LEGAL, PLANNING, AND ENVIRONMENTAL SYSTEMS (1999). A classic analysis of *Ramapo*'s implications is given in Fred P. Bosselmann, *Can the Town of Ramapo Pass a Law to Bind the Rights of the Whole World?*, 1 FLA. ST. U. L. REV 234 (1973). A recent analysis that ties the plan to the smart growth movement is John R. Nolon, Golden *and Its Emanations: The Surprising Origins of Smart Growth*, 35 Urb. Law. 15 (2003). *See generally*, JULIAN CONRAD JUERGENSMEYER & THOMAS E. ROBERTS, LAND USE PLANNING & DEVELOPMENT REGULATION LAW § 9.2 (Practitioner Treatise Series, 2d ed. 2007).

2. The American Planning Association (APA) has described "smart growth" as follows:

> Smart growth means using comprehensive planning to guide, design, develop, revitalize and build communities for all that: have a unique sense of community and place; preserve and enhance valuable natural and cultural resources; equitably distribute the costs and benefits of development; expand the range of transportation, employment and housing choices in a fiscally responsible manner . . . .

AM. PLANNING ASS'N, POLICY GUIDE ON SMART GROWTH 1 (2002), *available at* http://www.planning.org/policyguides/pdf/smartgrowth.pdf.

3. Florida's statutory expression of the concept is "public facilities and services needed to support development shall be available concurrent with the impacts of such development" FLA. STAT. §163.3177(10)(h) (2007).

4. *See, e.g.,* 2 JULIAN C. JUERGENSMEYER, FLORIDA LAND USE LAW: DEVELOPMENT, GROWTH MANAGEMENT, SUBDIVISIONS, AND ZONING (1999); Julian Juergensmeyer & James

requirements for developer funding of infrastructure that a brief summary should suffice to set the stage for the primary purpose of this Article, which is to predict and advocate future developments and the evolution of current programs.

In many states, the history of required infrastructure finance by the private sector begins with the required dedications and in lieu payments contained in subdivision regulations.[5] Local governments commonly required dedication of streets (internal roads) and utility easements as a prerequisite of plat approval. Judicial acceptance of such requirements was widespread at first on the "privilege theory" that considered platting a privilege conferred by government that developers had the option but not the requirement of pursuing. Under the privilege theory, local governments were permitted to impose any conditions they wished without much attention to such issues as reasonableness, equity, and protection against excessive regulation or regulatory takings. Since the theory was that the developer could always subdivide by metes and bounds if she considered the dedication requirements unacceptable, courts saw little need to formulate protective principles. The privilege theory soon lost judicial favor as it became increasingly evident that the choice was ephemeral,[6] and the courts eventually applied the same reasonable exercise of the police power requirements to subdivision regulation as to zoning and other land

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C. Nicholas, *Impact Fees Should Not Be Subjected to Takings Analysis*, *in* TAKING SIDES ON TAKINGS ISSUES: THE PUBLIC AND PRIVATE PERSPECTIVES (Thomas E. Roberts ed., 2002); Julian Conrad Juergensmeyer, *The Development of Regulatory Impact Fees: The Legal Issues*, *in* DEVELOPMENT IMPACT FEES: POLICY RATIONALE, PRACTICE, THEORY, AND ISSUES (Arthur C. Nelson ed.,1988); Julian Conrad Juergensmeyer, *The Legal Issues of Capital Facilities Funding*, *in* PRIVATE SUPPLY OF PUBLIC SERVICES: EVALUATION OF REAL ESTATE EXACTIONS, LINKAGE, AND ALTERNATIVE LAND POLICIES (Rachelle Alterman ed., 1988); JULIAN JUERGENSMEYER, FUNDING INFRASTRUCTURE: PAYING THE COST OF GROWTH THROUGH IMPACT FEES AND OTHER LAND REGULATION CHANGES, (James C. Nicholas ed., 1985); JAMES C. NICHOLAS , ARTHUR C. NELSON & JULIAN C. JUERGENSMEYER, A PRACTITIONER'S GUIDE TO DEVELOPMENT IMPACT FEES (1991); Julian Conrad Juergensmeyer, *Drafting Impact Fees to Alleviate Florida's Pre-Platted Lands Dilemma*, 7 FLA. ENVTL. & URB. ISSUES 7 (1980); Julian Conrad Juergensmeyer & Robert Mason Blake, *Impact Fees: An Answer to Local Governments Capital Funding Dilemma*, 9 FLA. ST. U. L. REV. 415 (1981); Tyson Smith & Julian Conrad Juergensmeyer, *Development Impact Fees 2006: A Year in Review*, 89 PLAN & ENVTL. L., Feb. 2007, at 3.

5. *See* JUERGENSMEYER & ROBERTS, *supra* note 1, at 252-98.

6. Florida courts were unenthusiastic about mandatory platting. The struggle culminated in the decision of the Florida Supreme Court in *Kass v. Lewin*, 104 So. 2d 572, 577 (Fla. 1958), in which the court held mandatory platting to violate the common law doctrine of restraints on alienation. The decision, which has still not been overruled, led to creative ways of making platting necessary from a practical if not a legal standpoint. For example, Charlotte County forbade sellers of subdivided but unplatted land to post on-site "for sale" signs. This and other obvious ruses received the approval of Florida courts but did not result in *Kass* being overruled. *See* County of Escambia v. Herring, 343 So. 2d 63 (Fla. 1st DCA 1977); Prescott v. Charlotte County, 263 So. 2d 623 (Fla. 2d DCA 1972); *see also* JUERGENSMEYER, FLORIDA LAND USE LAW, *supra* note 4, § 12.03.

use regulatory programs.[7]

The power of local governments in Florida to require platting and thereby regulate the subdivision of land was not clarified until after the movement to require developer funding of infrastructure began. As a result, developer funding requirements were never confined to the subdivision process nor greatly influenced by the privilege theory.[8] Instead, Florida's concepts of infrastructure funding requirements were more grounded in "impact analysis" and inspired by the emphasis on measuring the impact of development,[9] which culminated in the environmental arena with the environmental impact study requirements adopted in the National Environmental Policy Act of 1969.[10] In the Florida land use control law arena, the concept saw implementation primarily through the formulation of developer funding requirements through impact fees.

Although impact fees existed in Florida at least as early as the 1960s, the early litigation dates from the early- and mid-1970s. At first, such developer funding requirements fared poorly in the Florida courts.[11] The tide turned in the late 1970s with the Florida Supreme Court's decision in *Contractors & Builders Ass'n v. City of*

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7. *See* JUERGENSMEYER & ROBERTS, *supra* note 1, at 252-98.

8. The power of local governments in Florida to adopt subdivision regulations was unclear for many years. Early subdivision regulation authority came from the so-called population acts. A county that wished to exercise subdivision control got the Florida Legislature to authorize subdivision regulations for counties of a stated population range—which only included the requesting county. The Legislature thereby avoided a general authorization of the exercise of subdivision control but preserved the legal fiction of uniformity of state laws (for example, the prohibition of passing an act that applied to only one county). *See* JUERGENSMEYER, FLORIDA LAND USE LAW, *supra* note 4; Grover C. Herring & Tully Scott, *Land Subdivision Control in Florida*, 8 U. FLA. L. REV. 486 (1955).
The difficulties presented by population acts (which were not codified in the Florida statutes and were therefore difficult to "find" and as populations skyrocketed needed to be repealed and re-enacted with current population data) and the increased desire of fast-growing local governments to exercise subdivision control authority led to the enactment in 1969 of the County and Municipal Planning for Future Development Act. *See* 1969 Fla. Laws 642 (1969) (repealed 1985). The act was optional but conferred subdivision regulatory power on those local governments which chose to comply with its planning requirements. The Act was repealed in 1985 with the adoption of Florida's Growth Management Act (GMA) since the GMA was considered to authorize local governments to exercise subdivision control authority. 1985 Fla. Laws 235 (1985).

9. Professor Fred Bosselman expressed the concept in the mid-1980s. *See* JUERGENSMEYER & ROBERTS, *supra* note 1, at 474 & n.16.

10. National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-47 (2000).

11. In *Venditti-Siravo, Inc. v. City of Hollywood*, 39 Fla. Supp. 121 (Fla. 17th Cir. Ct. 1973) the city's "charge" for a special fund for acquisition and development of parks was labeled an invalid tax. *Compare* Venditti-Siravo, Inc. v. City of Hollywood, 418 So. 2d 1251 (Fla. 4th DCA 1982). Broward County's $200 per dwelling unit fee for roads and bridges met a similar fate in *Broward County v. Janis Development Corp.*, 311 So. 2d 371, 376 (Fla. 4th DCA 1975). Also in 1975, the Third DCA invalidated the City of Miami's fire line "hook-up" fee as facially unconstitutional because the funds collected were not specifically earmarked. *See* City of Miami Beach v. Jacobs, 315 So. 2d. 227, 228 (Fla. 3d DCA 1975).

Dunedin.[12] The court there found an impact fee for sewer and water treatment facilities was not a tax but rather a valid land use regulation.[13] Lower courts followed with pro-impact fee decisions that made Florida's legal climate fertile ground for developing into perhaps the leading state for police power based impact fees.[14] The trend reached its culmination when the Florida Supreme Court approved educational facility impact fees in the *St. Johns* case.[15] Surveys indicate that Florida's local governments have now collected billions of dollars of impact fees.[16]

Not only has Florida proved to be fertile ground for developer funding requirements through impact fees, it has also taken the lead in developing and applying what is probably the ultimate developer funding requirement, the concept of concurrency. The controversy it has engendered is perhaps the best indication of its potential to stop development unless infrastructure funding responsibilities are comprehensively confronted.[17]

III. INFRASTRUCTURE FUNDING: THE FUTURE

As already indicated, the principle purpose of this Article is to predict future developments within Florida and the nation in regard to infrastructure funding trends and techniques. To call them predictions is perhaps self-serving since they are also what I advo-

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12. 329 So. 2d 314 (Fla. 1976).

13. *Id.* at 321.

14. *See, e.g.*, Hollywood, Inc. v. Broward County, 431 So. 2d 606, 607 (Fla. 4th DCA 1983); Town of Longboat Key v. Lands End, Ltd., 433 So. 2d 574, 576 (Fla. 2d DCA 1983); Home Builders & Contractors Ass'n v. Bd. of County Comm'rs, 446 So. 2d 140 (Fla. 4th DCA 1983).

15. St. Johns County v. Ne. Fla. Builders Ass'n, 583 So. 2d 635, 642 (Fla. 1991).

16. Between 1993 and 2004, counties accounted for the largest amount of impact fee revenue collections, at $3.5 billion. Municipalities followed with $1.2 billion in impact fee revenue collections. Prior to 2002, school districts reported very few impact fee revenue collections. Since 2002, however, school districts have become a major beneficiary of impact fees with $500 million in impact fees collected. FLA. IMPACT FEE REV. TASK FORCE, FLA. LEGIS. COMM. ON INTERGOVERNMENTAL REL., FINAL REPORT AND RECOMMENDATIONS 3 (2006). The figures given are misleadingly low because they do not include those collected prior to 1993 (twenty years for some local governments) and do not include utility infrastructure impacts fees—the oldest of those collected in Florida.

17. Florida's statutory expression of the concept is "public facilities and services needed to support development shall be available concurrent with the impacts of such development." FLA. STAT. § 163.3177(10)(h) (2007). Leading discussions of the concurrency concept include JOHN M. DEGROVE, PLANNING POLICY AND POLITICS: SMART GROWTH AND THE STATES ch. 3 (2005);Thomas G. Pelham, *From the Ramapo Plan to Florida's Statewide Concurrency System:* Ramapo*'s Influence on Infrastructure Planning*, 35 URB. LAW. 113 (2003); Thomas G. Pelham, *Adequate Public Facilities Requirements: Reflections on Florida's Concurrency System for Managing Growth,* 19 FLA. ST. U. L. REV. 973 (1992); Robert M. Rhodes, *Concurrency: Problems, Practicalities, and Prospects*, 6 J. LAND USE & ENVTL. L. 241 (1991).

cate happening.

A. Prediction I: Unification of Developer Funding Requirements

Currently, there are various approaches to a local government requiring developer funding of infrastructure. These include required dedication, in lieu fees, user fees, impact fees, and rezoning conditions. The legal frameworks for these various approaches have developed in different time periods and in different contexts, and they are therefore often subjected to different standards and legal requirements. While treating them differently and in a parallel manner has probably been helpful in obtaining their legal and political acceptability, the time has come to "unify" them for several reasons.

First, from a developer perspective there is a possibility that by treating them differently the developer may be required to make overlapping "contributions" that—unless proper credit is given for one against the other—the developer could end up paying more than once for the same impact.[18] This is usually avoided through credit provisions of impact fee programs that require previously made dedications or payment to be deducted from the impact fees otherwise due.[19] Nonetheless, the coordination is not always clear or totally effective. Second, in some jurisdictions, the funding required of the development may vary based on the stage in the development process that it is "collected" or required. This is not fair to either the developer (vis a vis other developers) or to the local government since, if they are mutually exclusive, the local government may not be able to collect for the total impact the development has on infrastructure needs.

Third, treating them separately may limit the "options" of both the developer and the local government in making the contributions as palatable as possible to the developer and as economically effective as possible for the local government. Finally, from a legal perspective, coordination and assimilation of the various methods should result in clearer and more consistent standards for the various approaches that will increase fairness and efficiency for developers and local governments.

A new approach based on coordinating the various "methods" of developer funding requirements is beginning to emerge in Florida and elsewhere in regard to affordable and workforce housing pro-

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18. In Florida, this has particularly been a problem because of the infrastructure provision requirement imposed on the DRI approval process. *See supra* note 17.

19. ARTHUR C. NELSON, JAMES C. NICHOLAS & JULIAN C. JUERGENSMEYER, IMPACT FEES: PRINCIPLES AND PRACTICE (forthcoming 2008).

grams. An interesting model is found in the recently adopted workforce housing ordinance by the City of Islamorada, Florida[20] and in a similar program that would be established by the adoption of a recently proposed workforce housing program ordinance for the City of Destin, Florida.[21]

Under the Destin ordinance, the workforce housing obligation of a developer may be satisfied in one of the following possible ways: (1) onsite construction of workforce housing, (2) offsite construction of workforce housing, (3) conversion of market rate housing to work force housing, (4) payment of an in lieu fee determined on the basis of the cost of construction, or (5) payment of money by the developer to a nonprofit organization (such as the Habitat for Humanity), which is then obligated to provide the workforce housing units required of the developer. Since the determination of which approach will be used involves negotiation between the city and the developer, the optimum flexibility and adaptation to the particular site and circumstances of the proposed development can be achieved.

As discussed below, synthesizing the legal and planning principles and frameworks for the various developer funding approaches should aid and be aided by the development of a Florida statute—similar to various impact fee enabling acts which now exist in many states[22]—which would provide consistent standards, consistent procedures, and greater integration through clear crediting requirements of all developer funding approaches.

B. Prediction II: Expanding the Base and Scope of Infrastructure Funding Requirements

Two expansions of current developer funding of infrastructure requirements need to occur. First, social and green infrastructure needs to be added to traditional (sometimes referred to as "physical") infrastructure. Originally, developer funding requirements related to hard or physical infrastructure items such as roads, parks, water and sewer treatment facilities, and public safety facilities. In fact, even today most judicial decisions in regard to re-

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20. ISLAMORADA, FLA., VILLAGE ORDINANCES 07-23 (2007).

21. CITY OF DESTIN, FLA., DESTIN ATTAINABLE HOUSING ORDINANCE 13 (2007) (draft ordinance) *available at* http://www.cityofdestin.com/clientuploads/Documents/commdev/Impact_Linkage_Fees/4Ordinance_Draft1.pdf?PHPSESSID=4d71ecde0b82349c6a316a8d80ffde45.

22. NELSON, NICHOLAS & JUERGENSMEYER, *supra* note19.

quired dedications, impact fees, and in lieu fees center around these items of infrastructure.[23]

In the long run, the quality of life that Floridians seek requires much more than that because new development usually also creates the need for new or expanded "social"[24] and "'green"[25] infrastructure. Roads, parks, and schools may be obvious needs created by new development but childcare facilities, healthcare facilities, and workforce housing are also essential. Particularly in Florida, the preservation and protection of green infrastructure such as beaches, aquifer recharge areas, open space, and environmentally sensitive lands are also key to the quality of life Floridians have taken for granted. Several Florida local governments have already recognized the need for developer funding of both social and green infrastructure.[26]

Not only must the scope of infrastructure be expanded in order to correctly assess the true costs and impacts of growth, but the types of development which cause impact and should therefore share in its provision must be expanded. For example, it is often the practice in Florida and elsewhere to confine developer funding

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23. Consider the leading Florida cases and the infrastructure they involved: St. Johns County v. Ne. Fla. Builders Ass'n, 583 So. 2d 635 (Fla. 1991) (dealing with schools); Town of Longboat Key v. Lands End, Ltd., 433 So. 2d 574 (Fla. 2d DCA 1983) (dealing with parks infrstructure); Hollywood, Inc. v. Broward County, 431 So. 2d 606 (Fla. 4th DCA 1983) (dealing with parks infrastructure); Home Builders & Contractors Ass'n v. Bd. of County Commn'rs, 446 So. 2d 140 (Fla. 4th DCA 1983) (dealing with roads); Contractors & Builders Ass'n v. City of Dunedin, 329 So. 2d 314 (Fla. 1976) (dealing with sewer and water infrastructure).

24. "Developer funding requirements designed to raise capital funds for the "soft" or "social" infrastructure items are usually referred to as "linkage fees . . . ." JUERGENSMEYER & ROBERTS, *supra* note 1, at 540. "Underlying every linkage program is the fundamental concept that new downtown development is directly 'linked' to a specific social need. The rationale is fairly simple: Not only does the actual construction of the commercial buildings create new construction jobs, but the increased office space attracts new businesses and workers to fill new jobs. The new workers need places to live, transit systems, day care facilities, and the like." Christine I. Andrew & Dwight H. Merriam, *Defensible Linkage*, *in* DEVELOPMENT IMPACT FEES, *supra* note 4, at 227. The leading judicial decisions which "accept" the linkage concept include Commercial Builders v. City of Sacramento, 941 F.2d 872 (9th Cir. 1991); Russ Bldg. P'ship v. City and County of San Francisco, 246 Cal. Rptr. 21 (Cal. Ct. App. 1987); Holmdel Builders Ass'n v. Township of Holmdel, 583 A.2d 277 (N.J. 1990).

25. Green infrastructure is that which relates to protecting environmentally sensitive lands from the effects of development. The term usually employed to refer to developer funding requirements related to green infra structure is environmental mitigation fees. JUERGENSMEYER & ROBERTS, *supra* note 1, at 543; *see also* Thomas W. Ledman, *Local Government Environmental Mitigation Fees: Development Exactions, the Next Generation*, 45 U. FLA. L. REV. 835 (1993); Arthur C. Nelson, James C. Nicholas & Lindell Marsh, *Environmental Linkage Fees Are Coming*, 58 PLANNING 1 (1992); James C. Nicholas & Julian Conrad Juergensmeyer, *Market Based Approaches to Environmental Preservation: Mitigation Fees and Beyond*, 43 NAT. RES. J. 837 (2003).

26. For social infrastructure, see the workforce housing ordinances recently enacted by the City of Islamorada, *supra* note 20, and the proposed attainable housing ordinance of the City of Destin, *supra* note 21.

requirements for parks and schools to residential development. This practice places an inequitable burden on residential developers because commercial and industrial developments also "use" school facilities (for example, hurricane shelter, adult education, recreation, libraries) and parks (for example, corporate athletic teams, office picnics, and sports competitions).[27]

C. Prediction III: Innovative Funding Programs: TIFs, CDDs, Private/Public Partnerships and Profit Sharing

Thus far, the land use control power has been largely used to require developers to fund infrastructure either by paying money in the form of impact fees, user fees, or in lieu fees or to dedicate or convey land to the local government which is obligated to use the money or land to provide infrastructure. Often the developer is permitted or even encouraged to build infrastructure instead of making payments or dedications.

In the future, many more varied and sophisticated approaches should and will be used. The combination of traditional devices designed to give the development community choices and options has already been discussed above[28] using the proposed City of Destin workforce housing program. Under the Destin program, the workforce housing obligation can be fulfilled by the payment of a fee (in lieu), through construction of workforce housing onsite or offsite, through conversion of market rate housing to workforce housing, or even by giving money to a non-profit organization that will assume the developer's obligation to construct or provide workforce housing.

In many states, there is already increased usage of a variant form of infrastructure provision by the development community through tax increment financing (TIF).[29] In this approach the developer or development authority retains or receives the taxes attributable to the developmentally-caused increased value of the property to repay the costs of providing infrastructure for the new

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27. *See* Smith & Juergensmeyer, *supra* note 4.

28. *See supra* note 21 and accompanying text.

29. Authorized by enabling legislation in thirty-eight states, tax increment financing uses the increase in value that results from redevelopment, which the public financed in whole or in part. The *ad valorem* taxes levied on a redevelopment area are divided into two parts. That levied on the base value (assessed value at the time a project begins) is allocated to cities, counties, schools and other taxing districts, as usual. The tax levied on the increment (excess of assessed value over base value) goes to the redevelopment authority where the money may be used to finance public costs of the redevelopment or to repay bonds previously issued to raise revenue for the redevelopment.
JUERGENSMEYER & ROBERTS, *supra* note 1, at 117; *see also* Alyson Tomme, Note, *Tax Increment Financing: Public Use or Private Abuse?*, 90 MINN. L. REV. 213 (2005).

development for a specified period of time.[30] The justification is that the local government is relieved of the need to provide infrastructure to support the new development, and after the TIF period is over, the local government will receive increased revenues based on the new and increased value of the property. TIFs give the developer an incentive to make speedy, efficient, and adequate provision of the infrastructure needed by the new development.

Florida is one of the states with a statutory provision for the creation of Community Development Districts (CDDs).[31] CDDs somewhat parallel the TIF approach. Private developers are authorized to organize CDDs which become "mini" local governments for many purposes with the power to tax property within the district to pay for construction and maintenance of infrastructure and provision of other governmental services. The Act thereby provides an alternative, streamlined method for financing the construction of infrastructure needed by the new development.[32]

Still another approach, which is currently only in its infancy, is for developers and the local governments to enter into public-private partnerships in which the local government provides all or a portion of the infrastructure needed by the new development in return for an equity or profit-sharing interest in the development. The basics of this concept are already being partially used in some transit-oriented developments (TODs)[33] in which the public transit authority "furnishes" the land for the development and the mass transit infrastructure in return for lease payments from the developer that can be keyed to the development's financial successes.

Further development of the "profit sharing" approach seems

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30. *See* Tomme, *supra* note 29; Gary P. Winter, *Tax Increment Financing: A Potential Redevelopment Financing Mechanism for New York Municipalities*, 18 FORDHAM URB. L.J. 655 (1991). The TIF is conceptually related to enterprise zones. *See* David L. Callies & Gail M. Tamashiro, *Enterprise Zones: The Redevelopment Sweepstakes Begins*, 15 URB. LAW. 231 (1983); Jennifer Forbes, Note, *Using Economic Development Programs as Tools for Urban Revitalization: A Comparison of Empowerment Zones and New Markets Tax Credits*, 2006 U. ILL. L. REV. 177 (2006).

31. *See* FLA. STAT. § 190 (2007).

32. *Compare* Thomas J. Wilkes, Jr., *Community Development Districts: The Delusion that Tax-Exempt Financing for Developers Improves Growth Management*, 10 FLA. ENVTL. & URB. ISSUES 8 (1983) (arguing that community districts do not contribute to growth management, but on the contrary, promote undesirable development), *with* Ken van Assenderp, *Community Development Districts: An Alternative Way for the Private and Public Sectors to Enhance Growth Management*, 11 FLA. ENVTL. & URB. ISSUES 14 (1983) (arguing that community development districts foster growth management).

33. *See* JUERGENSMEYER & ROBERTS, *supra* note 1, § 9.12; Michael S. Bernick & Amy E. Freilich, *Transit Villages and Transit-Based Development: The Rules Are Becoming More Flexible—How Government Can Work with the Private Sector to Make It Happen*, 30 URB. LAW. 1 (1998); Robert H. Freilich, *The Land-Use Implications of Transit-Oriented Development: Controlling the Demand Side of Transportation Congestion and Urban Sprawl*, 30 URB. LAW. 547 (1998).

both equitable and inevitable. The developer is relieved of providing through equity or loans a significant portion of the capital that would otherwise be needed for the development (land costs and transportation infrastructure) and has the local government as a "partner" financially interested in the financial well being of the project. The local government or transit authority gets the advantage of a stream of future revenue with possibly fewer strings attached than if it collected impact, user, or in lieu fees from the developer. The developer is also freed from the need (and expense) to borrow the money to pay the fees up front as well as to purchase outright the land needed for the project.

Adapting this approach to non-TODs present challenges since the beauty of the TOD is that the contribution from the local government is clear—land and transit facilities—while in non-TODs the local government may not own land or have existing transportation or other infrastructure to provide to the development. Nonetheless, if the local government is willing and able to supply a large range of infrastructure (roads, parks, schools, libraries, . . . etc.) that it could otherwise require the developer to pay for, through an impact fee, for example, then the local government's "investment" is as valuable to the developer as the cash it would receive from a private equity investor. Once again the possible advantages to the local government are many: it has an income flow that it may receive indefinitely and it may be less restrained in how that revenue can be spent than if it came as exactions from the development.

D. Prediction IV: State and Regional Impact Fees

This Article, like most that discuss infrastructure finance, has emphasized local governments as the source of developer funding requirements. Unfortunately, this accurately corresponds to current practices. Leaving infrastructure provision to local governments ignores current realities and encourages—or even mandates—inequitable imposition of the burden on new growth based on its jurisdictional location. In the long run local governments cannot be given the responsibility for infrastructure that needs to be provided on a regional or even state-wide basis. Thus far, Florida has escaped somewhat the infrastructure disaster faced by many large metropolitan areas that is created by myriad units of local government, many of which refuse to assume or even recognize regional infrastructure needs. Atlanta, Georgia, is a good example. The Atlanta region, depending on how it is defined, has at

least 168 different local governments.[34] With no regional or state authority to enact or require developer funding requirements on a region-wide basis, a hodgepodge of largely inadequate infrastructure is inevitable.

In the famous decision of the Supreme Court of New Jersey in the *Mount Laurel* case,[35] the Court recognized the concept of regional welfare and required the Village of Mount Laurel to bear its fair share of the need for affordable housing in the region in which it was located. If Florida is not to suffer more infrastructure inequities as its metropolitan areas expand, the Florida courts or legislature must recognize the regional or state-wide need for infrastructure and require the adoption of developer funding programs which ensure that each government entity will bear its fair share of the infrastructure burden of the region in which it is located.[36]

E. Prediction V: The Florida Comprehensive Developer Funding of Infrastructure Act

As discussed above, unlike the situation found in many other states, the law of developer funding requirements, particularly impact fees, has developed and evolved in Florida without significant statutory guidance. Although Florida became one of the leading impact fee jurisdictions as early as the 1970s, and arguably the leading state at the beginning of the twenty-first century, there is still no enabling act or comprehensive statutory expression of standards. Although the Florida legislature has adopted several statutory references approving impact fees in various contexts over the years,[37] it was not until 2006 that it adopted an impact fee

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34. ATLANTA MSA GROWTH STATISTICS, 2005 ANNUAL REPORT, Metro Atlanta Chamber of Commerce, *available at http://www.investmentinrealty.com/documents/Atlanta-MSAGrowthStatsReport2005.pdf*.

35. S. Burlington County NAACP v. Twp. of Mt. Laurel, 336 A.2d 713 (N.J. 1975).

36.

> *[W]hose* general welfare must be served or not violated in the field of land use regulation[?] Frequently the decisions in this state, including those just cited, have spoken only in terms of the interest of the enacting municipality, so that it has been thought, at least in some quarters, that such was the only welfare requiring consideration. It is, of course, true that many cases have dealt only with regulations having little, if any, outside impact where the local decision is ordinarily entitled to prevail. However, it is fundamental and not to be forgotten that the zoning power is a police power of the state and the local authority is acting only as a delegate of that power and is restricted in the same manner as is the state. So, when regulation does have a substantial external impact, the welfare of the state's citizens beyond the borders of the particular municipality cannot be disregarded and must be recognized and served.

Id. at 726.

37. *See, e.g.*, FLA. STAT. § 163.3202(3) (2007). *See generally* JUERGENSMEYER, *supra*

statute. However, the current statute is short and non-comprehensive.[38]

From the standpoint of local governments wanting to use impact fees and other developer funding approaches, the advantage was that impact fees were left to generally approving courts for fine tuning and were not restricted by comprehensive[39] and limiting statutes as is (and has been for many years) the case in many jurisdictions. For example, the so called "impact fee enabling acts" of other jurisdictions generally limit impact fees to certain infrastructure types. The Georgia Development Impact Fee Act, for example, does not include educational infrastructure as a permissible subject for impact fees.[40] Of course the negative of not having an enabling act in Florida is that the rules, as well as the subject matter, for impact fees were left to the courts. From most perspectives this has been a positive for the development of impact fee law. As discussed above, the Florida courts were early in their adoption of the dual rational nexus concept, for example.[41] Also, the appropriateness of educational infrastructure as a subject of impact fees, which is controversial in many states,[42] was resolved favorably by the Supreme Court of Florida in the *St. Johns* case.[43]

I have long been an advocate of the status quo in Florida—that is, I am opposed the adoption of an impact fee statute in Florida for fear that both the scope and the effectiveness of impact fees would be frozen or back-tracked. The time has come, however, to recant this position and call for a comprehensive Florida statute that will codify existing impact fee law in Florida and extend it to other types of developer funding requirements so as to coordinate, clarify, integrate, and make more equitable the application of developer funding requirements. While this recanting is made with some trepidation in regard to the possibility of limiting the evolu-

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note 6, at §22.06.

38. FLA. STAT. § 163.31801 (2007).

39. For a list of current state impact fee enabling acts and their key provisions, see the website maintained by Clancy Mullen of Duncan and Associates, IMPACT FEES, http://www.impactfees.com (last visited Mar. 10, 2008).

40. *See* GA. CODE ANN. § 36-71-4 (1) (2007). Under the Georgia Act, impact fee programs may only be adopted for libraries, parks and recreation, water supply, roads and bridges, public safety, wastewater treatment, and storm water management.

41. *See* St. Johns County v. Ne. Fla. Builders Ass'n, 583 So.2d 635 (Fla. 1991); Hollywood, Inc. v. Broward County, 431 So. 2d 606 (Fla. 4th DCA 1983); Town of Longboat Key v. Lands End, Ltd., 433 So. 2d 574 (Fla. 2d DCA 1983); Home Builders Contractors Ass'n v. Bd. of County Comm'rs, 446 So. 2d 140 (Fla. 4th DCA 1983).

42. *See*, *e.g.*, Derek J. Williams, *Rethinking Utah's Prohibition on School Impact Fees*, 22 J. LAND RES. & ENVTL. L. 489 (2002).

43. St. Johns County v. Ne. Fla. Builders Ass'n, 583 So. 2d 635 (Fla. 1991); *see also* Volusia County v. Aberdeen at Ormond Beach, 760 So. 2d 126 (Fla. 2000).

tion of Florida impact fee law, the worst possible situation seems to be on the horizon. Now that there is a "picky" statute on the books, the temptation to constantly amend it with further picky and confusing provisions may be inevitable,[44] and the advantage of a truly comprehensive statute on point may well outweigh the risks inherent in limiting the evolution of impact fee principles by the courts. The opportunities that a comprehensive statute would provide to coordinate and integrate all developer funding requirements and specify the applicability of dual rational nexus and proportionate share principles to all of them is a tempting possible advantage. Such a statute should provide definitions, rules and standards, and coordination for developer provided/funded infrastructure requirements including:

- Dedication and Construction Requirements
- Mitigation Requirements
- Required Contributions
- Concurrency Requirements
- Consistency Standards

Hopefully it will be possible to establish a unified developer infrastructure funding concept that will combine and take the place of the approaches listed above. It is interesting to note that one of Florida's leading experts on growth management law—in fact one of its founding fathers—has recently called for the abolition of concurrency requirements and their replacement "with a uniform program of proportionate fair share impact mitigation exactions, with no exceptions."[45] The goal of the new statute should be to replace all of the fragmented and conflicting current devices used to require develop funding of infrastructure with an impact mitigation requirement that can be met in various ways to meet the specific needs of both the development community and the citizenry of Florida.

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44. The process has already started. *See* S.B. 578, 2007 Leg., Reg. Sess. (Fla. 2007)—which did NOT pass.

45. Robert M. Rhodes, *Florida Growth Management: Past, Present, Future*, 9 FLA. COASTAL L. REV. 109, 123 (2007). Although I am almost always in agreement with Mr. Rhodes, I must take issue with his proposal that the Florida State Comprehensive plan should be repealed. *See id*. at 122. Instead, I suggest that the State Comprehensive Plan should be strengthened to specify state and regional involvement in infrastructure finance and a uniform program of proportionate fair share impact mitigation exactions.

F. Prediction VI: State and Federal Funding to Cure Infrastructure Deficiencies

As pointed out earlier, infrastructure funding by the private and public sectors is often viewed as the province and responsibility of local governments. In the future there must be a greater state role. Increased state funding of infrastructure is absolutely essential to prevent the deterioration of the infrastructure of Florida and other states. Even if local governments use developer funding approaches to fund 100% of the cost of providing infrastructure adequate to finance the construction of the infrastructure required by new development—a very unlikely scenario!—local governments have no adequate revenue source to pay for remedying existing deficiencies, or what in impact fee terminology is often called the unfunded deficit.[46]

The money needed to remedy or meaningfully alleviate existing infrastructure deficiencies in Florida is, even by the most conservative estimates, upward of forty billion dollars.[47] The cost of "catching up" or raising the level of existing unacceptably low standards for infrastructure—congested roads for example—cannot be passed to new development.[48] From the early days of growth management to today there have been myriad unfulfilled "promises" of financial aid in regard to infrastructure deficiencies made by the State of Florida to its local governments, but the needs have been largely unfilled.[49] The situation must change if Florida's growth is going to continue even at a considerably re-

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46. *See* NICHOLAS, NELSON & JUERGENSMEYER, *supra* note 4.

47. This estimate is derived from the Florida State Comprehensive Plan Committee Final Report of 1987. With increased growth and increased costs it could have easily more than doubled in the last twenty years. *See* KEYS TO FLORIDA'S FUTURE: WINNING IN A COMPETITIVE WORLD, THE FINAL REPORT OF THE STATE COMPREHENSIVE PLAN COMMITTEE 13-30 (1987), *available at* http://www.dca.state.fl.us/fdcp/DCP/publications/zwick1.pdf.

48. The first prong of the dual rational nexus test as well as general equitable and political principles totally forbids this. JUERGENSMEYER & ROBERTS, *supra* note 2, § 9.9.

49.

> The 1985 Growth Management Act was based upon certain expectations about the availability of funding for infrastructure and land acquisition. The legislation was drafted on the assumption that these funds would be available and that concurrency would then be a matter of timing. New development would be timed to occur as needed infrastructure was provided and infrastructure provision was in turn timed to be in accord with the availability of funds. At the time the Act was passed, anticipated funding included a "services" tax and a ten cent per gallon increase in motor fuels taxes. However, the failure to implement these two sources of new revenues has fundamentally undercut the basic approach of the state's growth management legislation.

James C. Nicholas & Timothy S. Chapin, *The Fiscal Theory and Reality of Growth Management in Florida*, *in* GROWTH MANAGEMENT IN FLORIDA: PLANNING FOR PARADISE 51, 51 (Timothy S. Chapin et al. eds., 2007) (citations omitted).

duced rate.

It is unlikely that the State of Florida, or its sister states, alone will be able and willing to pay a major portion of the bill from a political and revenue standpoint.[50] It therefore seems inevitable and necessary that the federal government must also return to its past practice of providing funding for local government infrastructure.[51]

Proposals for federal funding in this area are not new. One of the first and most interesting was proposed by Senator Gary Hart of Colorado and others in 1985. Known as S. 849, it was a bill to establish a National Infrastructure Fund to provide funds for interest-free loans to State and local governments for construction and improvement of local infrastructure.[52] Currently, several bills are pending before Congress designed to accomplish goals similar to the Hart proposal.

Perhaps the closest to the old Hart proposal is the Rebuilding America's Infrastructure Act[53] introduced in August 2007 by Rep. Kucinich. The findings stated in the Bill closely coincide with the discussion above of current infrastructure deficiencies:

> (a) Findings-The Congress finds as follows:
> (1) Citizens chronically complain about the state of Amer-

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> At the time of passage of the 1985 legislation [the Growth Management Act], the state promised a "new fiscal reality," one in which the state was to be the primary agency for raising revenues to fund needed public capital improvements. This was going to be done by extending the sales tax to the highest growth sector of Florida's economy—services. These revenues would be growth elastic, that is, keep up with the growth of the state and its industries. In addition, increased state motor fuels taxes and revenues from other sources would help to pay for the state's two-thirds share of this estimated $53 billion bill. Had this fiscal theory been fulfilled, there would indeed have been a new fiscal reality in Florida.
>
> However, as discussed earlier the new fiscal reality initially outlined has never come to pass. The funding role for the state remains largely as it was before the landmark 1985 legislation. While enabling and encouraging a variety of new revenue streams for local governments, the Legislature has remained committed to a low impact system of taxation. This system ranks among the bottom third of the fifty states (35th in overall tax burden and 44th in taxes as a percent of personal income according, to Florida Tax Watch, 2006), despite population levels and growth rates that place Florida among the nation's leaders. As a consequence, local governments were and remain the primarily agent for infrastructure funding.

Id. at 59.

51. A major reason usually given for the current infrastructure crisis at the local government level is the federal government's cessation of infrastructure funding to states and their local governments. JUERGENSMEYER & ROBERTS, *supra* note 1, § 9.8.

52. S. 849, 99th Cong. (1985).

53. H.R. 3400, 110th Cong. (2007).

> ica's public capital—about dilapidated school buildings, condemned highway bridges, contaminated water supplies, and other shortcomings of the public infrastructure.
>
> (2) In addition to inflicting inconvenience and endangering health, the inadequacy of the public infrastructure adversely affects productivity and the growth of the economy since public investment, private investment, and productivity are intimately linked.
>
> (3) For more than 2 decades, the United States Government has retreated from public investment.
>
> (4) State and local governments, albeit to a lesser extent, have also slowed public investments and State and local taxpayers are frequently reluctant to approve bond issues to finance public infrastructure.
>
> (5) In the early 1970s, nondefense public investment accounted for about 3.2 percent of gross domestic product but it now accounts for only 2.5 percent.
>
> (6) Widespread neglect of maintenance has contributed substantially to the failure of the stock of public capital assets to keep pace with the Nation's needs.
>
> (7) Net of depreciation, the real nondefense public capital stock expanded in the past 2 decades at a pace only half that set earlier in the post-World War II period.
>
> (8) Evidence of failures to maintain and improve infrastructure is seen every day in such problems as unsafe bridges, urban decay, dilapidated and over-crowded schools, and inadequate airports.
>
> (9) The State departments of education collected data that reveals at least $300,000,000,000 worth of unmet school infrastructure needs.[54]

The Act would "provide up to $50,000,000,000 a year on average for mortgage loans, at zero percent interest, to State and local governments for capital investment in types of infrastructure projects specified by Congress" and would establish a Federal Bank for Infrastructure Modernization to administer the funds.[55] Other pending acts are much less ambitious and more specific. They include The National Infrastructure Improvement Act of 2007[56] and the Regional Economic and Infrastructure Development Act of 2007.[57]

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54. *Id.*
55. *Id.*
56. S. 775, 110th Cong. (2007).
57. H.R. 3246, 110th Cong. (2007).

IV. CONCLUSION

The title of this Article is deliberately ambiguous. It can be taken to mean that the Article is designed to discuss the past and future of infrastructure funding law in Florida, or it can mean that it is intended to discuss the past and future of the State of Florida. Both are intended because it is my belief that Florida's past and future are closely tied to the provision of infrastructure in the State. Florida's incredible growth from a population of 500,000 in 1900 to over 18,000,000 in 2008 was originally largely attributable to the "natural" infrastructure—sun, sand, surf, natural beauty, and climate. As transportation infrastructure, such as railways and highways, was constructed, the growth accelerated. Today, both the enjoyment and the very existence of the natural infrastructure is threatened by the need for supportive physical infrastructure that has totally failed to keep pace with the demands of the growth caused by the millions who have come to enjoy it.

Future growth as well as the continued quality of life of those already here to enjoy it are threatened by the inadequacy of the physical, social, and green infrastructure needed to enjoy it. A recent *Wall Street Journal* article highlighted the threat to the future vitality of the State with an article entitled "*Is Florida Over?*"[58] While the article incorrectly analyzes the threat almost entirely in terms of the increased costs to current and future residents of living in Florida,[59] it indirectly highlights the problem created by the dearth of adequate infrastructure and the tremendous costs facing the State in providing that infrastructure. If Florida is not over, solutions must be found to require new growth to pay for the infrastructure needed to serve and maintain it and for the public sector to pay for existing deficiencies. Legal requirements for developer infrastructure funding—their adequacy and equity—seem even more key to Florida's future than at any time in the past.

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58. Conor Dougherty, *Is Florida Over?*, WALL ST. J., Sept. 29, 2007, at A1.
59. "Florida's pull has been weakened mostly by rising costs." *Id.*