The Impact Xat

Paul Boudreaux, Stetson University
Impact fees complicate the construction of new housing across the nation. Although justified as a means of forcing new development to “pay its way” for the costs of government infrastructure necessitated by the new housing, impact fees are imposed in a way that make them, in effect, a dubious population tax. Indeed, the typical impact fee does little to discourage costly suburban sprawl. This essay, using economic lessons from policies to discourage the wasteful use of resources with light bulbs, bathrooms, and buildings, suggests a new policy course. It proposes an impact xat (a cross between a tax and fee) based on a combination of distance and the size of the housing unit, along with a conservation baseline to encourage close-in, affordable housing. If it were to replace the current system of property taxes, the impact xat could offer a simpler, fairer, and wiser way forward for the regulation of housing development in the 21st century.

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* Professor of Law, Stetson University College of Law, Gulfport and Tampa, Florida. This essay was supported through a Stetson Law scholarship grant. It was shaped and improved by comments from many scholars, including those at workshops at Stetson, the University of Maryland School of Law, and Wake Forest University School of law.
I. Introduction

The creation of new housing in America is complicated by impact fees imposed by local governments. Almost unknown a few decades ago, these fees have revolutionized the practice of community development in the United States. Advocates point to the money earned by needy local governments from profit-making developers and justify the fees through the argument that the funds reimburse governments for new services (schools, police, roads, and so on) necessitated by the new development. After years of indecision, courts for the most part have given their blessing to the practice of impact fees, which of course are passed on in part to new residents. And environmentalists cite the fees as a means of combating suburban sprawl.

But the typical impact fee system fails to meet its touted potential. As this essay endeavors to show, governments typically impose fees in a rigid and simplistic manner that make the fees little more than a tax on new population, which holds corrosive and socially exclusionary effects. While they do generate money for local governments that otherwise are loathe to raise taxes directly, the fees typically do little steer new construction away from suburban sprawl or encourage environmentally smart forms of development. By contrast, a more nuanced and sophisticated fee type of fee, which this essay jocularly calls a xat (which is “tax” spelled backwards, to indicate its hybrid status between xat and fee) would create a market incentive for developers to meet the demand for housing in a growing nation in economically and environmentally responsible ways. Such a xat would be based on both the suburban distance and size of the land for the proposed housing. This argument is bolstered by lessons of consumer choice in smaller markets of domestic life, including light bulbs, bathroom toilets, and green buildings – three introductory topics to which we now turn.
II. BULBS, BATHROOMS, AND BUILDINGS

Scenario #1: Light Bulbs. It has become an article of faith among environmentalists that fluorescent lamps should replace incandescent bulbs as the most common source of light in American households. The incandescent bulb – not invented but improved by Thomas Edison in the 1870s – is a simple but inefficient way of creating light, in that the bulb uses its electric current to create more heat than light.\(^1\) By contrast, fluorescent bulbs (or “lamps” as they are called by engineers) are more complicated but more efficient at converting electricity to light. Accordingly, a household that uses fluorescent bulbs will use less energy; although the fluorescent bulbs cost more initially, they last much longer, making them cost-efficient in the long run.\(^2\)

\(^1\) An incandescent bulb works by sending an electric current through a thin metal filament; this current energizes electrons in the filament (usually made of tungsten, largely because it does not melt when heated to a high temperature), which in turn, while cooling down, releases some of the energy as photons, creating visible light. Edison figured out a way to use inert gas in a bulb and a strong filament so that the filament would glow for many hours. Because the process works in effect by burning the filament, however, it expends a sizeable fraction of the energy as heat and not light. See Louis A. Bloomfield, *Incandescent Light Bulbs*, http://rabi.phys.virginia.edu/HTW/incandescent_light_bulbs.html. Thus the famous child’s Easy-Bake Oven has for years been able to cook brownies successfully simply through the heat of a 100-watt incandescent bulb – or so my wife tells me. For a story about the future of the Easy-Bake Oven in a post-incandescent world, see Gregory Karp, *Light bulb goes off for Easy-Bake Oven’s new idea*, CHI. TRIB., Feb. 24, 2011, http://articles.chicagotribune.com/2011-02-24/news/ct-talk-0224-easy-bake-oven-20110224_1_bulb-100-watt-incandescent-light-easy-bake-ovens.

\(^2\) A typical fluorescent lamp uses electricity to heat up mercury inside a tube of inert gas. Invisible ultraviolet photons emitted from the mercury in turn excite the phosphors in the tube, which in turn emit visible light. This process creates a much greater amount of light for energy used than do incandescents. Fluorescents also last far longer than incandescent bulb. See Encyclopedia of Laser Physics and Technology, *Fluorescent Lamps*, http://www.rp-photonics.com/fluorescent_lamps.html.
Adhering to the environmentalist doctrine of requiring “best technology” for harmful activities – a concept at the heart of the Clean Water Act\(^3\) and pollution rules for automobiles,\(^4\) for example – mainstream environmentalists have advocated for laws to ban new incandescent bulbs for household use.\(^5\) In the environmentally conscious European Union, new incandescents will in effect be barred from sale in 2012.\(^6\) The saving of energy – which means less need to burn climate-warming fossil fuels for electricity – is at heart of the rule. “By switching to compact fluorescent bulbs,” the EU’s energy commissioner has asserted, “families and companies can reduce their negative contribution to climate change and save money at the same time.”\(^7\)

In the United States, President George W. Bush in 2007 reluctantly signed legislation adopted by a Democratic-controlled Congress that, among a myriad of steps, would begin a phase-out of incandescent bulbs, starting in 2012. To be accurate, the law does not prohibit fluorescent bulbs *per se* – rather, it sets forth energy usage standards that today’s fluorescent

\(^3\) Clean Water Act § 304, 33 U.S.C. § 1314 (2011) (identifying various levels of “best technology” for point source dischargers).


\(^7\) European Commission, *Why has the EU Acted?*, http://ec.europa.eu/energy/lumen/editorial/index_en.htm (quoting European Commissioner for Energy Guenther Oettinger (accessed June 7, 2011)).
bulbs cannot meet (and are unlikely to meet). This fits with the true nature of so-called best-technology doctrine in environmental law. The statutes typically do not actually mandate specific technology; rather, they require outcomes that in effect require the use of equivalently good technology.

More recently, however, “tea party” conservatives in the United States have called for a reprieve of incandescent bulbs. Notably, Rep. Michelle Bachmann (R-Minn.) introduced in 2011 a Light Bulb Freedom of Choice Act. Characterizing the issue as one of liberty to avoid a big government mandate, the presidential candidate has proclaimed that “President Bachmann will allow you to buy any light bulb you want.” Mainstream environmentalists, of course, shook their heads in disapproval. What could be more straightforward as a step to save energy and decrease carbon emissions, they asserted, than a simple requirement to use fluorescent bulbs,

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9 U.S. Environmental Protection Agency, What Are Effluent Guidelines? (explaining that “best technology” typically is not a design requirement but a performance requirement), http://water.epa.gov/scitech/wastetech/guide/questions_index.cfm.


which are both more energy efficient and cost less over the long run? It’s an open and shut case, isn’t it?

Perhaps not. A few years ago, I ran across an article that astounded the card-carrying environmentalist in me. A story in the Washington Post asserted that one group of Americans was resisting mightily the switch to fluorescents. This group was not climate-change-denying conservatives. It was women. After checking to make sure that the famously left-leaning Post was not playing a trick on its readers, I read on. The story explained that, as its subhead read, “Energy-Savers a Turnoff for Wives.” The assertion was that many women so greatly prefer the supposedly “warm” light given off by incandescents that they reject the energy and money savings of “cold”-looking fluorescents. The head of the federal government’s Energy Star Program, Wendy Reed, was quoted as saying: “I have heard time and again that a husband goes out and puts the bulb into the house, thinking he is doing a good thing. Then, the [fluorescent] bulb is changed back out by the women. It seems that women are much more concerned with how things look. We are the nesters.”

The Post relayed an anecdote of an Oregon couple in which a wife battled her husband over replacement of her beloved incandescents.

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14 Id.

15 Id.
The tone of the astounding article was lightly critical, implying that even women who say they are environmentalists aren't putting their money where their lights are. But it occurred to me that this criticism was perhaps misplaced. After all, few citizens make the environmentally beneficial decision at every point in their lives. To do so would require sending automobiles and air conditioners to scrap heaps and turning down the thermostats of tiny little solar-powered apartments to 40 degrees in the winter. Most environmentalists don’t do this because they weigh the disadvantages to be greater than the advantages, even considering the benefit to the environment as a whole. Most Americans, with reason, do not consider ourselves shameful for owning a car. If Americans are allowed to drive cars, why not allow people to enjoy the glow of an incandescent bulb, if it truly is important to them? This point fits with a classic economic criticism that mandatory “command and control” laws fail to account for the sometimes great advantages to certain people of some environmentally harmful conduct.16

16 The most famous early legal criticism of laws requiring environmentally friendly conduct was Bruce A. Ackerman & Richard B. Stewart, Reforming Environmental Law, 37 STAN. L. REV. 1333 (1985). In the economic literature, Richard N. Stavins has stated that “Economists have consistently have urged the use of ‘market-based’ or ‘economic-incentive’ instruments—principally pollution taxes and systems of tradable permits—to address environmental problems, rather than so-called “command-and-control” instruments, such as design standards, which require the use of particular technologies, or performance standards, which prescribe the maximum amount of pollution that individuals can emit.” Richard N. Stavins, What Can We Learn from the Grand Policy Experiment? Lessons from SO2 Allowance Trading, 12 J. OF ECON. PERSPECTIVES 69, 69 (1998). Taxes used as economic incentives are often called Pigouvian taxes in honor of ARTHUR C. PIGOU, ECONOMICS OF WELFARE (1920).

More recently, commentators have stated that “It has become an article of faith among economists, legal scholars, and policy makers that economic forms of regulation such as effluent taxes and emissions trading are inevitably more efficient than traditional command-and-control regimes for environmental protection.” Daniel H. Cole & Peter Z. Grossman, When is Command-and-Control Efficient? Institutions, Technology, and the Comparative Efficiency of Alternative Regulatory Regimes for Environmental Protection, 1999 Wis. L. Rev. 887, 887. This later article sought to identify certain instances in which a regulation that commands conduct can be more efficient than economic incentives. One empirical study of a variety of environmental regulatory regimes concluded (note continued …)
In 2011, the popular home furnishings store IKEA stopped carrying incandescents. At the same time, the New York Times reported that some home designers were in effect stockpiling the old bulbs in anticipation of their legally mandated disappearance. One decorator refused to accept the “sickly hue” of fluorescents, while an actor and designer in New Orleans relayed that he carried a package of 60-watt incandescents to hotels when the travelled; “I look better in 60 watts,” he said. Meanwhile, the owner of a new French restaurant in Washington, D.C., was quoted as saying that he planned to use an estimated total of 600 bulbs over the life of the restaurant’s current lease. “I have a light-enough carbon footprint in the other aspects of the design,” he said, “so I can allow myself a lighting splurge.”

This is the second critical economic point. The goal of environmental protection is not to get Americans to use less energy through light bulbs per se. The goal is to get Americans to use less energy, period. Compared with energy-gobbling features of a typical American home, such as a water heater, refrigerator, air-conditioner, and above all, a furnace, light bulbs use a small

that economic incentives were most often an effective in improving these regimes. Winston Harrington & Richard D. Morgenstern, Economic Incentives versus Command and Control, RESOURCES, 130-17 (Fall/Winter 2004).


19 The actor was Bryan Batt, who played, among other things, Sal Romano in the acclaimed TV series Mad Men. Id.

20 Id.
amount of energy, regardless of the form of illumination. According to the U.S. Department of Energy, nearly 45 percent of household energy goes to heat the home (a faction that has risen with the expansion of house size in recent decades); the water heater uses 19 percent and the air conditioner for 9 percent. Household lights account for only 6 percent of household energy usage (and the number has fallen in recent years).²¹

If it is a public policy goal to conserve energy, is there a legal mechanism under which consumers are consistently encouraged to save energy, but are given the choice of how to do so? Of course, the economist says. Increase the price of electricity, through a tax, to account for the harms of energy usage, such as the global costs of fossil-fuel-induced climate change.²² Although not all households would use less energy, an increased cost would nudge many households to look for a variety of ways to conserve energy and save money. One household might chose to turn down the thermostat a degree or two in winter, or take shorter hot showers, or simply make sure to turn off incandescent bulbs lights when they are not needed. Another household might replace the old bulbs with fluorescents. But the choice of chilly lights or chilly rooms (the latter would probably save far more energy) would be left to the personal preference of the citizen, as economists say that choices should be.


²² Because the harm that the burning of fossil fuels to create electricity is a cost that is not reflected in the private transaction between the seller and buyer of a light bulb of other electricity-using good, the use of such good is said to create an external economy or externality. A solution to the problem of externalities is for law to tax these goods, in order to internalize at least some of the costs to the buyer and seller. See Bryan Caplan, *Externalities*, The Encyclopedia of Economics, http://www.econlib.org/library/Enc/Externalities.html.
**Scenario #2: Low-Flow Toilets.** In a memorable episode of the acclaimed former cartoon TV show *King of the Hill*, the all-American suburban dad, Hank Hill, who consistently battled with cockeyed behavior in the modern world, installed a low-flow toilet in order to save water, in compliance with local law. He soon discovers, however, that the new toilet has the perverse effect of increasing his water usage.\(^2^3\) As he explains to the county zoning board, “Unfortunately in the real world, where things don't flush like they do in the movies, it can take three, four, or, in the case of my wife, Peggy Hill, *six* flushes to completely remove solid waste.”

In the real world, this kind of perverse economic effect is called the *rebound effect*, through which a legal regulation generates a series of responses that undermine the purpose of the regulation. John Tierney, the skeptical science columnist for the *New York Times*, has written about this phenomenon. He infuriates many mainstream environmentalists with his questioning of accepted truths of the environmental policy. Tierney has cited nineteenth century British economist William Stanley Jevons, who posited that technological revolutions in the efficient usage of coal would result, paradoxically, in greater usage of coal, because of the new economic activity that the efficiencies would generate.\(^2^4\) Similarly, when the relatively cheap incandescent light bulbs replaced the old costly and inefficient gas lamps, households installed so many more lights that they ended up using just as much energy. Better efficiency standards for other household items, such as air conditioning and refrigerators, have encouraged citizens to buy bigger and more of the units, cutting away at the potential overall energy savings. Some

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Americans who trade in their gas-guzzling pickup trucks for hybrid cars might find the fuel economy so liberating that they take more and longer trips. And supposedly efficient new washing machines and toilets might require multiple operations to complete their assigned tasks.

How can policy fight against the energy rebound effect? Law can retreat from indirect efficiency standards for specific forms of resource usage (such as cars, refrigerators, and toilets) and focus directly on the ultimate goal: the conservation of resources. By charging more for gasoline, more for electricity, and more for water consumption, each and every consumer is encouraged to look for ways to conserve (and save money), be it through newer and more efficient items, lifestyle changes, or replacement of the taxed conduct with non-taxed replacements. For gasoline, a consumer could decide to bicycle for short trips instead of using taxed gasoline. For toilet usage, one could follow the maxim of “if it’s brown, flush it down; if it’s yellow, be mellow.”

Since 1980, market-oriented economists have slowly convinced finally policymakers that technology standards for specific forms of conduct (such as air pollution from furnaces that burn coal) are often unsuccessful in achieving environmental gains for low cost. Focus on the outcome, not the means, the economists have said. If we desire a specific outcome – say, a maximum amount of pollution – policy can “cap” this amount, and then allow trading among actors to create the most economically efficient outcome. Accordingly, in the 1990 Clean Air


26 See, e.g., Ackerman & Stewart, supra note 16.
Act amendments, Congress diverged from its usual practice of requiring best-technology standards and imposed a cap-and-trade program for the emission of acid-rain generating sulfur dioxide from smokestacks. The experiment was a success, as SO2 emissions plummeted, at a relatively minor cost to the economy, as polluters were spurred to look for any number of a variety of ways to cut their emissions – even if the government hadn’t thought of them.

Across the globe since 1990, nearly every new idea for environmental protection has involved some form of outcome-based regulation, as opposed to specific technology standards. The free-market economists have won. This fact makes it especially ironic that conservative American politicians, opposing President Obama’s plan for attacking the global problem of greenhouse gas emissions – an emissions trading program, of course – turned the economic mantra of “cap and trade” into an epithet about wrong-headed big government, with great success among the American populace.

**Scenario # 3: LEED Buildings.** The opportunity for certification of a “green” building as a LEED (Leadership in Environmental and Energy Design) structure has shaken up modern construction in America, especially for public and high-cost buildings. From the futuristic glass

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28 See, e.g., Stavins, supra note 16; Joseph Goffman, *Title IV of the Clean Air Act: Lessons for Success of the Acid Rain Emissions Trading Program*, 14 PENN ST. ENVTL. L. REV. 177 (2006) (explain how the sulfur dioxide trading program has achieving environmental gains with lower than expected costs to industry).

HEARST CORPORATION SKYSCRAPER IN NEW YORK, TO A SPARRING 17-ACRE
INDUSTRIAL DISTRIBUTION CENTER DEVELOPED BY STIRLING CAPITAL INVESTMENTS IN THE DESERT OUTSIDE
VICTORVILLE, CALIFORNIA.30 AMERICAN CORPORATIONS HAVE BEEN TRIPPING OVER THEMSELVES TO ATTAIN
LEED CERTIFICATION, WHICH ALMOST AUTOMATICALLY CONFFERS UPON THEM THE STATUS OF GOOD
ENVIRONMENTAL STEWARD. MEANWHILE, GOVERNMENTS ACROSS THE NATION ARE REQUIRING THAT NEW PUBLIC
BUILDINGS BE LEED CERTIFIED. MOST FEDERAL DEPARTMENTS, AS WELL AS LOCAL GOVERNMENTS FROM
CAMBRIDGE, MASSACHUSETTS, TO INDIANAPOLIS, INDIANA, TO PORTOLA VALLEY, CALIFORNIA, REQUIRE OR
ENCOURAGE LEED OR OTHER “GREEN” BUILDING CERTIFICATION.31 IN THE MIND OF THE ENVIRONMENTAL
PUBLIC, LEED CERTIFICATION APPEARS AS A CLEARLY BENEFICIAL STEP.

BUT, AS WITH BULBS AND TOILETS, SKEPTICS POKE HOLES IN THE WORLD OF LEED CERTIFICATION.
CRITICS HAVE FOLLOWED TWO LINES OF THOUGHT. THE FIRST IS A CRITICISM OF PROCESS. THE STANDARDS FOR
LEED CERTIFICATION HAVE BEEN CREATED BY THE U.S. GREEN BUILDING COUNCIL, A NON-PROFIT
ORGANIZATION SUPPORTED LARGELY BY MEMBER OF THE CONSTRUCTION INDUSTRY. AMONG OTHERS, PROFESSOR
SARAH SCHINDLER CONTENTS THAT IT IS INAPPROPRIATE FOR GOVERNMENTS TO EMPLOY INDUSTRY-CREATED
STANDARDS FOR THEIR ENVIRONMENTAL LAWS.32 THE ARGUMENT IS THAT THE FARMER HAS LET THE FOX GUARD


the henhouse, or, use another analogy, that professors have let their students set the standards for what makes an “A” examination.

The second criticism is economic. A building is certified as meeting LEED standards at the design stage. The standards employ a 100-point scale; a high score triggers certification.33 The score is calculated through a complex checklist, using design efficiencies for the energy and atmosphere (the most important factor for new buildings), water efficiency, indoor environmental quality, materials and resources, and the sustainability of the site.34 In addition to certain prerequisites, the largest credit – up to 17 points – is for optimal energy design; using renewable energy sources (solar, wind, etc.) can earn another seven points.35 Six points can be credited for building with access to public transportation, such as being within a quarter mile of bus lines.36 There are a variety of single credits, for things such as having a bicycle storage area and changing rooms nearby to using regional materials in construction.37

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35 See id. at vi, 35, 38.

36 See id. at vi, 6.

37 See id. at vi, 7.
The essence of the criticism is that LEED certification is a faulty means of achieving environmental protection because the system processes on design, and not on outcome.\textsuperscript{38} It encourages the use of “gizmos,” as critics state in reference to new technological items that gather points, but fails to ensure that the building is actually operated in a manner that saves energy. Certification does little to ensure that the operators follow through on the potential. According to one critical energy efficiency consultant, who was quoted in the \textit{New York Times} in 2009, the plaque that certified buildings proudly display “should be installed with removable screws. Once the plaque is glued on, there’s no incentive to do better.”\textsuperscript{39} This consultant has noted that some LEED certified building have installed their solar panels at the wrong angle or have covered up part of the panels with other equipment; as a result, LEED buildings don’t necessarily save energy.\textsuperscript{40} Architectural writer Lloyd Alter, using a variant of the portmanteau word \textit{greenwashing} to refer to unsupported environmental public relations efforts by

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corporations, calls the process of green building certification as LEEDwashing. A building plan might get credit, for example, for using tinted windows that reduce the amount of sunlight during the summer, but the operational practice of keeping thermostats set to a chilly 69 in summer seven days a week—a standard practice in much of office America—gobbles up energy at such a rate that it overwhelms the savings from the tinted windows.

Another criticism is that LEED does little to discourage sprawling construction. Although the revised point system does include significant factors relating to access to public transportation and other existing services, many certified LEED buildings have been constructed on “greenfields” far from existing urban centers. For residences, certification is available even for enormous houses, fitted out with numerous environmentally oriented technologies, despite the fact that large houses by necessity almost always consume oversized amounts of electricity, heat, and cooling. Indeed, there is a concern that the lure of LEED certification may cause wealthy corporations to choose new construction over adapting existing buildings, resulting in large energy expenditures in the construction process. In sum, after analyzing various data sets, physicist John Scofield asserted in 2009 that, that LEED certified commercial buildings, on average, “show[ed] no significant primary energy savings over comparable non-LEED buildings” and that the LEED certification “is not lowering source energy consumption and,

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accordingly, is not delivering reduction in greenhouse gas emission associated with building operation.”^43

What system would cut energy usage and greenhouse gas emissions? A direct penalty on such usage, of course. A stiff tax on carbon emissions would push electrical suppliers to pass along costs to users, who in turn would be impelled to look for a myriad of ways to avoid paying for the higher costs, either through technological “gizmos” or through simpler measures, such as smaller houses, lower air-conditioning usage, smaller cars, and living closer to work. The benefit of a simple tax is that the government would not have to make any of the contentious choices of inclusion or exclusion in the LEED checklist approach; the tax would encourage any and all energy savings.

One economic reason why a market disincentive might not work as well as a technology command, in some theoretically instances, is what could be called psychological inertia. This inertia might lead a user to act in a way that economists would call irrational. If one has been using a certain technology for some time, this psychological inertia might cause one to stick with the familiar old technology, even if using the old technology necessitates paying a heavy governmental tax. When and if this psychological inertia is widespread, it might make sense for government to overcome it by forcing users to adopt a new technology.^44


^44 Here’s a homespun example. For years my wife has scolded me for using an entire square sheet of paper towel for even tiny spills, while she rips off a small piece of the paper towel for such minor needs. Although I know that could save money (and trees) by more frugal usage of the paper towel, and I have no objection to ripping off a piece of the towel, a psychological inertia (for decades I’ve simply pulled off an entire sheet) keeps me forgetting to rip (note continued …)
Another reason for policymakers to be reluctant in adopting market disincentives for energy usage is that any such mechanism – be it a simple tax, a more complex cap-and-trade program, or packaging it as an “impact fee” on energy users – would especially painful for Americans with modest incomes. A household that earns $40,000 a year almost certainly spends far greater percentage of its income on energy – electricity, natural gas, and gasoline – than does a rich household that earns $500,000 annually, even if the richer household has a bigger house (or houses) and bigger cars. This phenomenon makes any and all domestic taxes susceptible to the label of being regressive because it imposes an disproportionate share of the burden on the less affluent – unlike, say, the progressive income tax, under which richer families pay a higher percentage of their income.45

A potential solution – which admittedly complicates the plan – would be to grant each household what might be called a conservation baseline credit. Let’s consider how such a credit would work for household electricity. Law could allow each household to consume a certain amount of electricity free of charge; this charge-free baseline could be established at a level that is equivalent to, perhaps, the amount used by the most frugal one percent of American households (the precise calculation could be adjusted easily as desired). Such a family would likely be a household who lives in very small house or apartment, has limited use of heating or air-conditioning, and runs few appliances. This idea follows the thinking of best-technology

off a small piece. But a solution has been found: We now buy a brand of “green” towels in which the pre-cut sheets are less than half the size of the traditional square sheet, thus forcing me to use “less” towel. This “technological” fix has overcome my inertia.

laws – the standard is used because it has been proven to be successful – but differs from best-
technology requirements in that every household would be allowed to use more electricity, as long as it paid for it.

Such a conservation baseline credit system would greatly assist low-income households – from urban families in small apartments without air-conditioning in Philadelphia to American Indian households in small houses in New Mexico – from having to pay a regressively large amount in energy tax. Households with larger electricity usages would pay the bulk of the tax. The baseline credit plan would no doubt be subject to the criticism that some households use electricity for reasons that are putatively “out of their control” – such as the fact that the household has five children or lives in a suburb with few small houses. To be most effective, however, there should be no allowance for such factors; each and every household should have to choose whether the energy consumption choice would be worth paying. (The most acceptable adjustment might be for geography, in that households in cold climates tend to use more electricity than those in warmer climates.) And each and every household would be constantly encouraged, by the sting of the tax and the carrot of the conservation baseline credit, to consider a variety of ways to decrease its energy usage.

A stiff tax on energy usage for commercial buildings would encourage both builders and operators to look continually for ways to save energy. This incentive might result in some buildings using expensive but energy efficient insulated multi-pane glass windows (this incentive would be especially strong in sunny climates); others might prefer to install an thick soil “green” roof (useful in cold climates); some might find that an array of energy-saving features made economic sense. Other companies might respond to employee complaints about high gas prices incurred during long commutes and decide to locate the new corporate building on public
transportation routes, and not in an isolated suburban greenfield. Finally, a corporation for which the economics of green technology simply is not cost-efficient, especially if the company is teetering on the edge of insolvency in the face of low-cost competition, would not be forced to adopt any specific measures. But there is no doubt, economics tells us, that a tax – assuming it is large enough (and the number could be continually be adjusted) – would result in decreased energy usage over time.

An even-handed tax, combined with a fairly simple conservation baseline credit, would be the most effective way of curbing energy usage while not regressively harming modest-income households. The simplicity of such a system, combined with its effect of encouraging energy savings throughout the human lifecycle, offers great lessons for understanding the benefits and flaws of our land use laws and the popularity of impact fees, to which we now return.

III. THE LURE OF IMPACT FEES

Impact fees have transformed the economics of housing construction in much of modern America. Although precise numbers are difficult to ascertain – largely because impact fees, like most land use laws, are the province of the thousands of local governments in the United States – impact fees of various types are imposed by jurisdictions across the nation. One detailed survey in 2010 collected information from hundreds of jurisdictions in 34 states. The cost of the

average impact fee for a single housing unit was $11,076.\textsuperscript{47} From their early days in the 1970s,
when governments charged for increased water and sewer infrastructure necessitated by new
development, today’s “impacts” sometimes include things such as public parks, public art, and
using up land that otherwise could have been used for affordable housing.

As explained in this part, challengers in the past sometimes successfully challenged such
mechanisms in court, asserting that the laws amounted to an unlawful special \textit{tax}, as opposed to a
permissible user \textit{fee}. Today, however, most states permit localities to impose impact fees, as
long as the fee is imposed on those categories of developments that are shown to necessitate
government or social costs, and the fee itself is roughly proportional to the purported impact.

This legal test – which varies somewhat from state to state – parallels that of U.S. constitutional
law for governmental exactions of land, under the famous case duo of \textit{Nollan} and \textit{Dolan},
discussed below. Fees have exploded in popularity in large part as means for local government
to generate a large amount of revenue without imposing any direct tax directly on citizens, which
makes it politically far more palatable.

Governments and advocates assert that impact fees serve two broad purposes. First, fees
compensate governments for services that are necessitated by the new housing development.
This is a simple “but for” argument: without the new development, government would not have
to provide the services, with it, government does. Therefore, it is justified for government pass

\textsuperscript{47} See Duncan Associates, \textit{supra} note 46, at 4-5.
along these marginal costs to the housing developer. The most commonly uttered phrase is that “new development should pay its own way,” or some variant thereof.48

The second assertion is that impact fees help combat and curb suburban sprawl. This argument depends on an assumption that fees discourage new construction in the suburban fringe. Implicit is the assumption that new development will be steered toward infill – that is, locations inside existing built-up area. This essay, however, offers a criticism of how local governments tend to institute impact fees in early 21st century America. The criticism is this: *Impact fees tend to act as a tax on population, rather than as disincentive to suburban sprawl.* This observation allows us to develop a new vision for an impact “xat” that would more directly and efficiently discourage sprawl and encourage infill housing development in a growing nation.

A. A Short History of Impact Fees

The idea of charging housing developers a fee for permission to build evolved in the years after World War II, when the United States became the first suburban nation in world history – a nation in which millions of citizens were free, because of the private automobile, to live far from employment, schools, and shopping. Impact fees received perhaps their first treatment in the legal literature, as well as their fundamental justification, in 1977, when Fred Jacobsen and Jeff Redding published an article that used the term “impact taxes” and was

subtitled “making development pay its way.”

According to Jacobsen and Redding, developer reaps a “windfall” when government supplies infrastructure to support a new housing development. Because this support is a windfall, they reasoned, it was appropriate for government to charge the developer to make it “pay its way.”

Here is a somewhat stylized hypothetical example of the argument, using a 21st century example. A developer named Smith concludes that the housing slump has reached bottom in a metro area, particularly in a suburban county, just west of a big city, that has received favorable publicity for its good school test scores and low crime rate. Smith considers a large new housing development, tentatively named Babbling Brooks Homes. Previous development in the county has typically been located in the eastern part of the county, closer to the central city, but a number of housing subdivisions have been scattered throughout the county. Although Smith considers a handful of available sites in the east, close to the big city, Smith chooses a tract of land in the western part of the county, for a number of reasons: land is cheaper there, there is more room for a spacious development, and there are fewer neighbors nearby to raise complaints about things such as earthmoving trucks, increased traffic, and added congestion. As for the western’s sites major drawback – its distance from the big city – this causes Smith to lose little sleep. First, Smith knows that many businesses are relocating from the big city to the wealthy suburban county and that more new businesses are opening in the suburbs than in the old city – phenomena typical of most metro areas in a suburbanized nation.

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50 Id. at 407-09.
Moreover, as Smith’s plan for Babbling Brooks works its way through the county governmental approval process – in modern times, a developer typically must seek approval to subdivide the property, among other steps – it becomes clear that the county government would need to spend money on a number of projects in response to the new development. First, the county road that leads west to Babbling Brook would receive far more traffic that it has before; in order to handle this traffic, the county concludes that it should add a new lane in either direction on the road. Next, state law requires that counties provide water and sewer service to all homes, except those in distant rural areas. Accordingly, the county would have to install water and sewer lines for the new homes in Babbling Brooks. Third, the influx of people to the development would strain the government’s police, fire, and school systems. The county police estimate that they would be unable to meet the policy with their current staffing and current stations. To be able to respond quickly to houses, a new police station might be required. Most costly of all, it appears that Babbling Brooks would necessitate the construction of at least one new public school. The closest elementary schools are both filled to capacity with students and are further away from the planned development than is desirable under the state’s rules for busing young children to distant schools. Even though the school-age population in Babbling Brooks is not expected to fill a new elementary school, the only real solution for the government is to build a new school, redistrict some areas already developed to the new school, and plan for it to be filled by students from new developments that will almost certainly arrive in the near future of a popular county of a growing nation.51

51 There are many other governmental services that might be necessitated by an influx of people, including parks, recreational facilities, water drainage and treatment, libraries, counseling centers, health clinics, and on and on. The list is limited only by the extent for governmental services in an age of expensive government.

(note continued …)
Without a provision for shifting the costs of these services to the developer (either through a monetary charge or requiring that the developer itself provide at least some of the services), the costs would have to be borne by the county government and thus by the county’s citizens. Because many of the services are one-time, big-ticket “infrastructure” costs, such as a new school, the costs would be relatively large “up-front” money. In general, there are two ways to pay for these services. The first method is to pass the costs on to all citizens of the county, as with a typical government expenditure. The second is to charge the developer (and thus indirectly the occupants of the new homes) for the costs, through an impact fee.

The argument goes as follows. Assume that there are two categories of residents in a community: existing residents and new residents. The existing residents have long paid for infrastructure, used by them only, through their taxes. When the influx of new residents occurs, their new homes and lives cause a marginal increase in the costs of the locality’s infrastructure. If taxes continue to pay for all infrastructure, the existing residents will pay for a share of this marginal cost increase. Because the existing residents do not need the new infrastructure, it is perceived to be unfair to have them pay for a share of it. It is asserted that it is fairer for the new residents to pay for the full amount of the marginal costs. See Been, supra note 48, at 143; THOMAS P. SNYDER & MICHAEL A. STEGMAN, PAYING FOR GROWTH: USING IMPACT FEES TO FINANCE INFRASTRUCTURE (1986). In this way, the new development and new residents are forced to “internalize” the costs to the locality of their new residence. Been, supra note 48, at 144. In other ways, they are forced to “pay their own way.”

Scholars have devoted considerable attention to the issue of whether or how much impact fees drive up the cost of housing. Vicki Been in 2005 published an excellent survey of the topic. Applying simple economics, she concluded that such fees, because they increase the cost to the developer, are likely to cause developers to pass along some of the charge to affected housing units. Been, supra note 48, at 150-53. How much of the fee will be passed on buyers depends on the elasticity of demand. If demand is elastic, the developer will not be able to pass along much of the cost, whereas if demand is inelastic the buyers will bear most of the cost of the fee. Id. at 152. Elasticity depends on factors such as the ready availability of alternatives for the buyer. If a development subject to fees is across the street to a similar development in a jurisdiction without fees, buyers are likely to shun any attempt to pay a large part of the fees in the affected area (indeed, the developer may find it unprofitable to build in a location with such preferable competitors). But if consumers have no such ready alternatives, they will agree to pay some or much of the cost of the fee. Id. at 153. Been’s survey of empirical evidence, including an early study of (note continued …)
The first technique would not necessarily result in an immediate increase in local taxes. Governments often pay for big-ticket projects through the issuance of bonds, which are then paid off over time. But any form of paying for the infrastructure costs through general expenditures would result in existing citizens, as well as the residents of Babbling Brooks, paying for the new development.\textsuperscript{54} By charging the developer an impact fee, by contrast, the funds are available before the services are provided, avoiding the potential time lag.\textsuperscript{55}

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\textsuperscript{54} One might not see this as “unfair” to existing residents on the county. After all, when these existing residents moved in (or were born), other people, including the then-existing residents, helped pay for services provided to them, such as schools, sewer, and fire protection. If new residents of Babbling Brooks did not have to pay the full share of the infrastructure costs, because existing residents helped pay, they would nonetheless receive similar beneficial treatment in the future, when yet another new development arises in the county.

\textsuperscript{55} Vicki Been has noted that the imposition of impact fees can help prospective homebuyers, in that the fees provide a source of revenue that enables the construction of necessary infrastructure, which will then increase the value of (note continued …)
Advocates of impact fees have convinced both lawmakers and courts that it is more equitable to charge the developer (and thus the existing residents) for the costs. Jacobsen and Redding asserted, as noted, that it is a “windfall” to allow the developer to avoid paying for the full amount of the costs.\textsuperscript{56} “It is hard to say that existing communities have an obligation to subsidize new development,” they concluded.\textsuperscript{57} A few years later, Julian Conrad Juergensmeyer, whose writings helped spread the popularity of impact fees, declared, with co-author Robert Mason Blake, that “[t]he proposition that new residents should bear the capital expense they create should not seem unfair.”\textsuperscript{58} Franklin James wrote in 1990 that “[I]mpact fees have normative merits as sources of local government revenue, because they allocate the costs of new infrastructure on the beneficiaries of the infrastructure: landowners, developers, and consumers of the new development.”\textsuperscript{59}

More recently, David Callies, Robert Freilich, and Thomas Roberts have reiterated the “subsidy” argument, adding the characterization that having the entire jurisdiction pay for the

\begin{itemize}
\item the home, as well as relieving pressure on property taxes to pay for infrastructure. Been, \textit{supra} note 48, at 148-49.
\item The increase value of the home, however, will result in a rise in the property tax. \textit{Id.} at 149.
\end{itemize}

\textsuperscript{56} Jacobsen & Redding, \textit{supra} note 49, at 408.

\textsuperscript{57} \textit{Id.}, \textit{supra} note , at 419. The term “subsidize” is, of course, perhaps the most tendentious term in domestic policy debate, filled with the connotation that one is receiving monetary support from the government that may not be deserved.


\textsuperscript{59} Franklin James, \textit{Evaluation of Local Impact Fees as a Source of Infrastructure Finance}, 11 Municipal Fin. 407, 413 (1990).
new services constitutes “exporting” money to the new development. They also noted that with some services, such as the provision of water, it might be logistically difficult, if not impossible, for the government to keep up with the demands of new development: imagine a large new housing subdivision in a desert area of Arizona where there is no more water available for public use.

In sum, the policy argument for imposing impact fees on new housing is a fairly simply form of “but for” reasoning:

1. The new housing creates a need for new governmental expenditures, for things such as new schools, roads, sewers, parks, etc.
2. But for the new housing, these expenditures would not have to be made.
3. Therefore, it is fair to pass on the costs of these expenditures to the party making the new housing: the developer seeking permission to build.

B. Snapshot: Today’s Laws of Impact Fees

Advocates also make clear another reason for the popularity of paying for services through impact fees instead of through general revenues. To take the latter course might necessitate raising taxes – a governmental action that lawmakers are loathe to do except under the direst circumstances. Politically, it is far more palatable to impose the monetary charge on a

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61 See id. at 199-200, 261 (discussing the “drain” on local government from new development).
small group – the new residents of the development – that presumably includes many people that are not already voting residents of the jurisdiction. Indeed, the development of charges to developers has avoided use of the term “tax.” While Redding’s and Jacobsen’s 1977 article referred to the charge as an “impact tax,” by 1981 Juergensmeyer and Blake uniformly called the charge a “fee.” One important reason for the change is that many state courts held that monetary charges would be impermissible if they were considered a tax – both because of state laws limiting local governments’ authority to impose taxes and requirements that certain taxes be imposed broadly across the populace. By contrast, a fee is defined as a charge that is imposed only a certain category of people because they receive a privilege in return, such as an entrance “fee.” With housing developments, the argument goes, it is justifiable to impose a fee only on those parties – developers and residents of their developments – who have benefit directly from the government expenditures.

This is not to say that an impact fee on new housing faces no legal obstacles. Indeed, both the federal and state courts have developed often-complex sets of rules for the permissible

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62 *See, e.g.*, City of Montgomery v. Crossroads Land Co., 355 So. 2d 363 (Ala. 1978) (purported “fee” was considered a “tax” and thus was beyond jurisdiction’s authority); Contractors & Builders Ass’n v. City of Dunedin, 329 So. 2d 314, 317-20 (Fla. 1976) (local government held no statutory authority to impose a “tax” but did have authority to impose “fee”), cert. denied, 444 U.S. 867 (1979).

63 *See, e.g.*, FLA. CONST. art. VII, § 2 (ad valorem taxes such as property taxes, “shall be at a uniform rate within each taxing unit,” with limited exceptions); Venditti-Siravo, Inc. v., City of Hollywood, 39 Fla. Supp. 121, 122-23 (Fla. 17th Cir. Ct. 1973) (purported “fee” was considered a property “tax” and thus invalid because it was imposed only on new development).

64 Jacobsen & Redding argued that profits from development were a “windfall” because the developer received from government a valuable right – the right to build. Jacobsen & Redding, *supra* note 49, at 407-08.
application of impact fees and their closely related variant, the land *exaction*. A brief examination of this law helps illuminate the usage and limitations of the current practice of impact fees. With the development of the modern suburban housing subdivision in the twentieth century, local governments began to require that the developer “dedicate” a portion of the property to the government – that is, that the developer transfer the title to certain portions of the land in return for receiving governmental approval to subdivide the land into housing plots and build on them. This transferred land typically was used for roads, drainage channels, and other public areas of the development.  

Under the old models of urban or rural development, the government typically would build a street or road first, and private parties would then build adjacent to this existing infrastructure. Under the new suburban model, however, the developer created an entire community, often from scratch, and itself designed the public ways, which were then transferred to the government.

From this precedent of trading the right to build in return for the dedication of land, governments were emboldened in the twentieth century to be more creative in their use of the practice. Instead of the word *dedication*, with its connotations of a happy volunteering of property by the developer, a new word arose. The word *exaction*, which means the demand of a payment, is probably most familiar to educated persons through William Shakespeare’s *The Merchant of Venice*, in which the moneylender Shylock cruelly chooses as security from the borrower Antonio to “exact” a pound of flesh from Antonio if he fails to repay the loan on time.  

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65 See Juergensmeyer & Blake, *supra* note 58, at 418.

The constitutional limits of exactions were first enunciated through a case from coastal California. Beaches typically are property controlled by governments under a “public trust,” which sometimes overlaps with private property rights on beachfront property. Because government typically wants to facilitate the citizenry’s access to the public trust beaches, construction on private beachfront property often encounters tight regulation.\textsuperscript{67} Indeed, governments often demand exactions of easements of land, running to and from the beach, across the property of landowners who seek permits to build. The government’s assertion is that the exaction of a property right is justified by the burden to the public created by the new construction. In \textit{Nollan v. California Coastal Commission}, however, the Nollans, like many beachfront landowners in affluent coastal California, wanted merely to tear down an old small house and replace it with a bigger one.\textsuperscript{68} The state agency charged with regulating beachfront constriction conditioned the permission to rebuild on the exaction of an easement from the public street to the beach across the Nollans’ land.\textsuperscript{69} Because the homeowners’ plan was simply to

\textsuperscript{67} For example, one of the most notable statements of private property rights in recent history was made by the U.S. Supreme Court in \textit{Lucas v. South Carolina Coastal Council}, 505 U.S. 1003 (1992). There, a state coastal commission had imposed a new rule that prevented any new construction within a certain distance of the ocean. The regulation prevented the plaintiff from completing his plans to build a splashy beachfront house or, indeed, any construction. The Court, through Justice Antonin Scalia, clarified a new principle – that a regulation of land is “taking” if it eliminates “all economically beneficial use” of the land, even if the government had a good reason for the regulation, with certain limited exceptions. The effect of the \textit{Lucas} doctrine has been limited, in large part because few cases match \textit{Lucas} in the extent of the total deprivation of economic value of the property.

\textsuperscript{68} 483 U.S. 825, 827-28 (1987). The Nollans had previously rented out the small bungalow on the property; their plan was to build a three-bedroom house that, the court characterized, would have been “in keeping with the rest of the neighborhood.” \textit{Id.}

\textsuperscript{69} \textit{Id.} at 828.
replace one house with another, the government could not assert that the rebuilding would have any adverse affect on public finances; nor did the agency assert that it risked any environmental harm. Rather, the government justified its demand for an exaction largely on a contention that a larger house (the Nollans’ house was one of many along the beachfront) would block somewhat the view of the ocean from the public street, thus preventing the public “psychologically … from realizing a stretch of coastline exists nearby that they have every right to visit.”

The U.S. Supreme Court held the government’s exaction was an unconstitutional “taking” of property without compensation. Writing the court’s five-justice majority, Justice Antonin Scalia, in 1987 a fairly new high court appointee of President Ronald Reagan, took the opportunity to express deep skepticism of government and its motivations in dealing with private property, asserting that the government’s conduct here amounted to “extortion.” Reasoning that the “psychological barrier” argument was factually illogical, the court held that when there is no “essential nexus” between, on one hand, the burden imposed on the public by new construction and, on the other hand, the government’s exaction, the government’s plan violates a homeowner’s constitutional rights. In such a situation, the government is simply “taking” land from the landowner; under the U.S. Constitution’s Fifth Amendment, “private property shall not

70 Id. at 828-29.

71 Id. at 831-32 (asserting that “the right to exclude [others is] ‘one of the most essential sticks in the bundle of rights that are commonly characterized as property.’ Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 433, (1982), quoting Kaiser Aetna v. United States, 444 U.S. 164, 176, (1979).”).

72 483 U.S. at 837 (“In short, unless the permit condition serves the same governmental purpose as the development ban, the building restriction is not a valid regulation of land use but ‘an out-and-out plan of extortion,’” quoting J.E.D. Associates, Inc. v. Atkinson, 121 N.H. 581, 584, 432 A.2d 12, 14-15 (1981)).
be taken for public use without just compensation.” Accordingly, the Court held that the government agency was compelled to compensate the Nollans for the exaction of the easement.

*Nollan* struck a blow for the property rights movement, in that courts were required to scrutinize, at least in theory, governments’ demands for exactions. But *Nollan* did nothing to prevent a government, when faced with a small harm to the public by virtue of a construction plan, from demanding a large exaction, as long as that exaction had a “nexus” to the harm. The Supreme Court took on the concern over excessively large exactions in 1994, in *Dolan v. City of Tigard*.

Here, the environmentally conscious city of Tigard, Oregon, a suburb of Portland, had instituted a complicated land use program designed to create more “open space” and discourage automobile use. Among other things, each business in the downtown area had to provide 15 percent of the property as non-built-upon open space. Meanwhile, the city also sought to improve the drainage system along Fanno Creek, which runs through downtown, as well as to create a pedestrian and bicycle path alongside the creek route. When Florence Dolan sought permission to build on the site of her plumbing and electrical business downtown – among other things, she wanted to double the size of the store and replace a gravel parking lot with a larger

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73 U.S. Const. amend. V.

74 483 U.S. at 841-42. The Court implied that although the policy of increasing public access to the beach was a worthy goal, “that does not establish that the Nollans (and other coastal residents) alone can be compelled to contribute to its realization.” The government can take an easement across the land, but “it must pay for it.” Id. at 841-42.

75 512 U.S. 374 (1994).

76 Id. at 376-78.
asphalt one – the city conditioned the permit on her dedicating a portion of her property along
the creek for storm drainage improvement and granting the city an easement for a portion for the
public path. The city justified its exactions through the reasoning that the improvements in the
parking lot would send more water into the creek (thus justifying the storm drainage
improvements) and that the bigger store would attract more traffic to downtown Tigard (thus
justifying the easement for the bicycle path).\textsuperscript{77} Perhaps eager to develop new law, the Court’s
majority, quickly agreed that this rationale fulfilled \textit{Nollan}’s “nexus” requirement. However, the
Court held, an exaction also must be “roughly proportional” in scope to the harm purportedly
created by the landowner’s development.\textsuperscript{78} Government cannot exact a mountain to make up for
a molehill.

\textit{The Nollan/Dolan} doctrine is a mainstay of both land use treatises and legal education. It
sets forth a distinct doctrine, employs new terminology (“essential nexus” and “roughly
proportional”), and includes two hotly contested Supreme Court cases that neatly mesh together.
It is a dream for both commentators and legal educators. The problem with the \textit{Nollan/Dolan}
doctrine, however, is that time has largely passed it by. While governments can and do still
impose exactions for certain putative land use ills, it is far more common today for governments
to impose an impact fee than to exact title to land itself. This change makes sense. A fee gives
government greater flexibility. It is simple economics that receiving X amount of money gives
one at least as much utility, if not more, than receiving a specific piece item that it worth X
amount. The money can readily be converted into a myriad of uses; a piece of property may not

\textsuperscript{77} \textit{Id}. at 379-80.

\textsuperscript{78} \textit{Id}. at 384.
be so easily fungible. Moreover, a developer is more likely to prefer to pay an impact fee than to submit to an exaction. A fee is predictable and can simply be added to the accountant’s ledger, whereas an unpredictable exaction of land holds the potential for mucking up a developer’s spatial plans.

Remarkably, however, the U.S. Supreme Court has never clarified whether the Nollan/Dolan doctrine applies with full force to impact fees – that is, whether an impact fee must hold an “essential nexus” to the costs of a new development, and whether the fee must be roughly proportional to this cost. This is of little moment, however, as nearly all states have developed constitutional doctrines that in effect resemble the federal law, in that they attempt to ensure that the impact fee “matches” the posited costs generated by the planned development. It is instructive to examine two states in which impact fees have been most intensely debated – California and Florida. These two states, located at the two warm southern corners of the continental United States, were the two great foci of internal migration in the second half of the twentieth century and have played oversized roles in many areas of land use law and policy.

Florida holds perhaps the richest history of state law on impact fees. In one of the earliest state high court decisions, the Florida Supreme Court upheld in 1976 an impact fee for water and sewer service imposed on new developments by the city of Dunedin. A coastal town in the northern part of the Tampa Bay area, Dunedin’s population nearly doubled during the 1970s (but, interestingly, has risen only slightly since then). The court reasoned that an impact fee was a reasonable business decision: “The avowed purpose of the ordinance in the present case is to raise money in order to expand the water and sewerage systems, so as to meet the increased

demand which additional connections to the system create. The municipality seeks to shift to the user expenses incurred on his account. A private utility in the same circumstances would presumably do the same thing ....” After rejecting arguments that the fee was a disguised tax and that it impermissibly distinguished new residents from existing ones, the Court held that the only legal limitation is that the government cannot charge a particular developer more than the \textit{pro rata} share of the expanded facilities necessitated by new development. In making the calculation, the government not need make a “perfect” determination of the \textit{pro rata} share.

There are limits, nonetheless, on the latitude granted to Florida jurisdictions in imposing impact fees. Most notably, a developer can avoid a fee if the development at issue clearly would not generate any specific costs for a particular government service. In a case involving a public school fee imposed by Volusia County, on the Atlantic Coast, in 2000, the Florida Supreme Court held that the fee could not be imposed on a mobile home development that was limited to persons at least 55 years old. Because the residents of this development would not be attending public school, it would not be fair to have the developer pay for them. In sum, the Court set forth a “dual rational nexus test” for impact fees in Florida: “[T]he local 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

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\textsuperscript{80} 329 So. 2d 314, 318 (Fla. 1976).

\textsuperscript{81} \textit{Id}. at 320.

\textsuperscript{82} \textit{Id}. at 320 n. 10.
collected and the benefits accruing to the subdivision.” 83 This is roughly a reiteration of the
*Nollan/Dolan* test: the government must show that the new development generates costs for new
services and that the fee roughly matches the cost.

Most states follow a doctrine similar to Florida’s awkwardly named “dual rational nexus”
test. Although California has a long and rich history of impact fees, its law was slower to
develop, perhaps because of its history of deference to intrusive regulation in a state with so
many competing demands, including environmental concerns, on a limited amount of buildable
land. This changed in the 1980s, in the wake of the state’s notable anti-tax movement, 84 the
conservative impetus of the Ronald Reagan era, and the U.S. Supreme Court’s pronouncements
in *Nollan* and *Dolan*. The most significant result in California was the enactment in 1989 of a
Mitigation Fee Act, which sets forth standards for imposition of impact fees on new
construction. 85 California defines a mitigation fee as money “charged by a local agency to the
applicant in connection with approval of a development project for the purpose of defraying all

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83 Volusia County v. Aberdeen at Ormond Beach, L.P., 760 So. 2d 126, 134 (quoting St. Johns County, 583 So.2d
at 635, 637 (Fla. 1991), in turn quoting Hollywood, Inc. v. Broward County, 431 So.2d 606, 611-12 (Fla. App. 4th
1983)). Questions that were left unresolved included: What if a development is unlikely to have any public
schoolchildren, not because of law, but because of economic factors, such as the fact that the development attracts
only rich people who send their children to private school? What if the development included only small efficiency
apartments that were unlikely to house any children?

84 The most notable feature of California’s anti-tax movement was 1978’s Proposition 13, which amended the state
Constitution to limit property taxes. *CAL. CONST.* art. 13A, § 1. The restriction was upheld in Nordlinger v. Hahn,

or a portion of the cost of public facilities related to the development project.” 86 When imposing a fee, a government must, among other things, “identify the use to which the fee is to be put” and “determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.” 87 Again, this standard roughly follows the Nollan/Dolan test.

An early high court application of the Mitigation Impact Fee arose from fees put in place by Culver City, a moderate-sized municipality that is surrounded mostly by the western part of Los Angeles. 88 Famous as an early center of the movie industry, Culver City’s population has remained fairly steady in recent decades, in large part because there are few new spots in which to build. In the 1988, the owner of land in which a private tennis center had once stood applied to build condominiums. 89 The city, which asserted a local need for a tennis facility, charged the owner a fee of $280,000, purportedly to mitigate for the loss of the old tennis courts. 90 It also charged a “public arts” fee through which a developer had to pay one percent of the value of the

86 Id. § 66000.

87 Cal. Gov Code § 66001(a).

88 See Ehrlich v. City of Culver City, 911 P.2d 429 (1996). The tennis center was built in the mid 1970s, during tennis experienced a great boom in popularity in the United States. One impetus was the fame garnered by two young Americans – the brash Jimmy Connors and the elegant Chris Evert – who each captured the Wimbledon singles tennis title in 1974.

89 Id. at 434.

90 Id. at 435-39.
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proposed development to a city arts fund, which was used to create public art in the city.\(^{91}\) While upholding the principle of imposing fees on any development of the “type” that will generate a need for public facilities, including public recreational spaces, the California Supreme Court held that the imposition of the $280,000 was not roughly proportional to the incremental need for public tennis courts.\(^{92}\) As for the public art charge, however, the court found that the requirement that each development contribute to the establishment of public art, even if the art is not necessarily placed on the site of the development, is a valid form of aesthetic regulation.\(^{93}\)

More recently, the City of Lemoore, California, defended its complex system of impact fees in a state appellate court in 2010.\(^{94}\) A small but growing city in California’s agriculturally oriented Central Valley, Lemoore (named after a pioneer named Dr. Lee Moore), imposed fees on new developments for recreational faculties, police, city vehicles, fire, and garbage collection, among other services. For recreational facilities, the calculation of fees went as followed: The city determined how much it has spent on capital recreational facilities and divided this amount by its current population; the per capita figure (about $2000) was then charged as a fee to new developers, based on the number of persons expected to reside in the new development.\(^{95}\) The

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\(^{91}\) As an alternative to paying the fee, a developer could supply the art itself, if approved by the city government. There is no record whether any developers have sought to engage in the risky step of supplying their own art project.

\(^{92}\) *Id.* at 448-49.

\(^{93}\) *Id.* at 450-51.

\(^{94}\) Homebuilders Association of Tulare/Kings County v. City of Lemoore, 185 Cal. App. 4th 554 (2010).

\(^{95}\) *Id.* at 563.
A developer’s organization sued, arguing that this approach violated the Mitigation Fee Act, in that the city had not identified with particularity the specific recreational facilities that the city was planning to build and for which it needed money.\(^{97}\) Lemoore had generalized plans but not specific ones for an aquatic center, a fitness center, and a naval air museum (Lemoore is home to a large naval air station). The court rejected the developers’ argument, concluding that a city need not have plans to build specific facilities in order to impose an impact fee.\(^{98}\) It is noteworthy that the Mitigation Fee Act requires merely that a government show that a link between a need for a public facility and the “type” of development on which the fee is imposed.\(^{99}\)

Indeed, it would make little sense if a fee could be charged only to those developments for which permits are sought immediately before a public service is about to be funded or started up; if this were the case, developers would time their applications to avoid being the camel that breaks the government’s financial back. Accordingly, most impact fees are imposed on each and every new development, regardless of the specific timing of planned governmental expenditures. One developer might pay fees even though a city has no immediate plans to make any capital expenditure.

\(^{96}\) Id. at 562.

\(^{97}\) Id. at 564-65.

\(^{98}\) Id. at 565-66.

expenditures on public services; another developer might pay a similar fee in a year in which the city is making large expenditures. The fee varies only by the size of the development.

The only feature of Lemoore’s fee system that was set aside was the charge for fire protection in the east side of the city. The study performed for the city found that fire protection services were adequate in the older, established part of town, but not adequate in the rapidly growing western part of the town near the naval station. Because the eastern sector was found to be adequately supplied with fire services for the near future, the court reasoned, rather was no reasonable match between new development there and the imposition of impact fee for fire services.¹⁰⁰ This geographic differentiation between an older, well-provisioned section of the jurisdiction and a more rapidly sprawling section will help form the basis for a call for reform in Part IV.

C. Impact Fees (aka, the Population Tax) at Work Today

Although impact fees vary from jurisdiction to jurisdiction, most hold certain similarities. While the “impacts” vary and the fee sometimes depends on whether the housing unit is a single-family house or a multifamily unit, most jurisdictions impose fees that are otherwise uniform, in that the fee does not vary based on distance from town centers or the size of the housing lot. To see how impact fees currently work in practice, let us examine fees from two popular jurisdictions: Orange County, Florida, and Palo Alto, California.

¹⁰⁰ Id. at 571-73.
Orange County, Florida, is in the center of the state and includes Orlando; in part because of high costs on the coasts, central Florida has been the fastest growing area of the state in recent years. Orange County’s population in 2010 was more than 1.14 million, or ten times the population in 1950 and more than double that of 1980. The County enacted impact fees in the early 21st century, during the housing boom, for schools, law enforcement, fire protection, roads, and parks and recreation.\textsuperscript{101} As of 2010, the typical total of fees for a single-family house was $18,686 — a number significantly higher than the national average.\textsuperscript{102} In 2010, the county enacted new laws to either cut each of the fees or cancelled planned increases for 2011, in an attempt to stimulate new housing construction and economic activity.\textsuperscript{103} For 2011, Orange County imposed a school fee of about $6,525 for new single-family houses and $3,921 for multi-family units (both of these figures represented cuts of about 50 percent from the 2010 fees). For roads, a single-family house incurred a fee of about $2,868, whereas a multi-family unit generated $2,010. The fees for parks, law enforcement, and roads were smaller. The 2011 total for a single-family house was $10,604.07.\textsuperscript{104} Although Orange County includes both longstanding developed sections and extensive rural areas, the fees did not vary on the location


\textsuperscript{102} Duncan Associates, supra note 46, at 3.

\textsuperscript{103} Id.

\textsuperscript{104} Orange County Government, Fla., Impact Fee Calculator (calculation for one single-family house), http://apps.ocfl.net/eBuilding/ImpactFee/ImpactFeeCalc/impact_calc.asp#summarybookmark.
of the planned housing. Nor did they vary on the size of the housing unit or the acreage of the land.

By contrast, Palo Alto’s fee schedule is somewhat more sophisticated, perhaps befitting the affluent and high-tech home of Facebook, Hewlett-Packard, and Tesla Motors. Interestingly, Palo Alto does not impose a fee for school costs, which constitute the largest fee in most jurisdictions.\(^{105}\) Instead, the city assesses “traffic” fees that vary depending on the area, particularly for commercial development. Next, a community facilities fee varies from $4,454 to $13,458, depending on whether the planned housing unit is larger than 3000 square feet and whether the multi-family home is bigger than 900 square feet.\(^{106}\) Most significantly, for housing developments of 50 or more units, the city assesses a parkland fee of $55,186 for a single-family home or $37,984 for a multifamily unit.\(^{107}\) This charge, by far the largest fee, does not vary by location or size of home. Some “affordable” and below-market-rate housing developments are exempt from the impact fees.\(^{108}\)

The practice of development impact fees in modern America, as shown by the Orange County and Palo Alto examples, proves the assertion that we may fairly characterize these charges as fees on new population. Fees are assessed, most often, because a new development


\(^{106}\) Id.

\(^{107}\) Id. The fee is paid “in lieu of” a parkland dedication by a developer of 555 square feet for single-family house or 382 square feet for multi-family units. Id.

\(^{108}\) Id.
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will bring new people into a jurisdiction. Using the “but for” syllogism stated above, we can replace “housing” with “people” and come up with the following:

1. New people create a need for new governmental expenditures, such as for schools, roads, sewers, parks, etc.

2. But for the new people, these expenditures would not have to be made.

3. Therefore, it is fair to pass on the costs of these expenditures to the party bringing in the new people.

Such a syllogism is fully defensible, I assert, under the current law of constitutional limitations on local government law. It is indeed true that if a town experienced zero population growth, it may never (or at least for long time) need to build new roads, a new fire station, or a new public park. New population is a but-for cause of the need for new expenditures. Applying the Nollan/Dolan test, an impact fee imposed on new population would meet the “rationale nexus” test if the government fulfilled the simple requirements of showing that new population necessitated certain new expenditures and that the fee “roughly” matched the number of new people. Likewise, a new population tax would meet the simple proof requirements of California Mitigation Fee Act (if it were reworded to replace population for development) and Florida’s dual rationale nexus test. Indeed, the venerable language reiterated time and again in the Florida courts refers straightforwardly to a fee imposed because of a “growth in population” facilitated by the new development.109

109 Volusia County v. Aberdeen at Ormond Beach, L.P., 760 So. 2d 126, 134 (quoting St. Johns County, 583 So.2d at 635, 637 (Fla. 1991), in turn quoting Hollywood, Inc. v. Broward County, 431 So.2d 606, 611-12 (Fla. App. 4th 983)).
Once recharacterized as a population fee, we can test the implications of such a fee policy. In general, there are two ways for a jurisdiction to experience a growth in population. The first is through in-migration to new housing. The second is through reproduction of the existing population – that is, by creating babies. Through the syllogism that an increase in population justifies an impact fee, the fee rationale could be applied in newly born people. Just as a developer generates new population, so do the parents of a baby. An impact fee would make these families “pay their way.” Cumulatively, many new children in a jurisdiction will necessitate new government facilities, such as roads (at first, parents will drive the new people to doctors’ visits; later on, the new people will often secure their cars and drive on their own), parks (more children mean more swing sets and soccer fields, of course), and most notably, more public schools and classrooms. The great “baby boom” of the two decades after World War II forced governments across the money to allocate money to schools and other services, even though the concept of the impact fees was also still in its infancy; the costs largely were paid for through taxes and bonds. (Today, the concern that more children will necessitate more school expenditures encourages many jurisdictions to adopt land use polices that implicitly discourage in-migration of families with children.110)

One might raise an objection that it is normatively “unfair” to impose an impact fee on parents simply for having a child. There is nothing “wrong” with having children, and this

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conduct is not something that law should discourage. This is a sound response. But the same policy arguments can be made with regard to requiring new housing developments “pay their way.” New housing is created largely in order to respond to a growing American population. Since the 1970s, when impact fees first became popular, the United States’ population has continued to grow, in fact more rapidly than many other wealthy nations’ populations. As of 2011, the United States held more than 311 million people (not counting millions of undocumented and uncounted persons) – an increase of more than 50 percent from the 1970 total of only 203 million.\textsuperscript{111} The United States’ population now grows by about three million persons a year,\textsuperscript{112} more than one million of which recently has been attributable to legal immigration.\textsuperscript{113}

In fact, the number of American households has grown, by percentages, even more rapidly than the population, as the average household size has shrunk considerably, due to the fact that more people live alone and that families have fewer children than in decades past. The number of households has risen from about 63 million in 1970 to about 117 million in 2009\textsuperscript{114} -- an increase of more than 85 percent.\textsuperscript{115} The number of Hispanic households has more than quadrupled since


(note continued …)
These new people and new households must live somewhere. Indeed, at the peak of the housing boom in 2008, nearly half of all homebuyers were first-time homebuyers.117

The facts of a growing American population casts doubt on the fundamental fairness argument behind impact fees on new development: that those fees are an equitable way to make the development “pay its way.” Once impact fees are recharacterized as fees on new population, the argument becomes “the developer is paying for bringing new people into this jurisdiction.” Moreover, once fees are seen as charges on new population, we can fit the role of these fees into local government politics – in particular, the desire of certain citizens to depress the population growth in their communities. From the simplest recognition of the phenomenon of NIMBY (meaning “not in my backyard!” and reflecting the attitude of some toward new construction near them) to the voluminous literature on the practice of exclusionary zoning (through which governments use land use laws to exclude new migrants),118 observers have documented well

116 See id.


that many citizens, especially affluent suburbanites, desire to suppress population growth near them.\footnote{Vicki Been has summarized the concerns that impact fees are motivated by a desire to exclude low-income person or minority persons, or that they have this effect. Been, \textit{supra} note 48, at 146; see also ROBERT J. BULLARD, EUGENE GRIGSBY III, AND CHARLES LEE, \textit{RESIDENTIAL APARTHEID} (1994). The argument is that because racial minorities tend to have lower incomes, increased prices due to impact fees adversely affect them. This assertion is debatable. After all, a prospective homebuyer needs a certain income to be able to buy a home (more in credit-right 2011 than in credit-easy 2005, it is worth noting). For this group of relatively affluent people (which includes a disproportionately small percentage of minority persons to begin with), an increase in price of say $20,000 will not necessary “exclude” a significantly higher percentage of minority persons. Laws that affirmatively prevent the construction of low-income housing, such as apartments and small homes, are undoubtedly a far more powerful force in excluding low-income and minority households.}

If we develop a stereotype of a community in which this feeling is strong, it would be jurisdiction in which: the population is already fairly dense; automotive traffic frays nerves; new development tends to be close to existing development because of natural constraints such as mountains or water; antipathy against new housing dovetails with concern over the environmental impacts; and the citizens are well educated and able to mobilize to use law to restrain the growth of new housing.\footnote{\textit{See} Been, \textit{supra} note 48, at 142 (noting that “communities undergoing the most growth, particularly those on the urban fringe, appear to be most likely to adopt fees’).} Such a place would likely be in California, where all of these factors exist; in fact, the average impact fee in California in 2010 ($23,441) was more than double that of Florida’s, which has the second highest average. ($8,960).\footnote{Duncan Associates, \textit{supra} note 46, at 5.}

The perfect example of the stereotype might be Palo Alto, the affluent city in the densely built-up Silicon Valley, which itself is hemmed in by sea, by mountains, by California’s tight
environmental laws, and by limitations on the fresh water supply. It takes little imagination to realize that most current residents of Palo Alto (median household income is more than $118,000, and the median home is worth more than $900,000) have little desire to see their city’s population grow.\textsuperscript{122} Indeed, Palo Alto imposes the highest average impact fees for a new housing unit than any other location in the country: more than $69,000 per unit in 2010.\textsuperscript{123}

By contrast, the 2010 survey of impact fees did not mention any jurisdictions in North Dakota imposing a housing impact fee. North Dakota’s population has remained essentially flat since 1930.\textsuperscript{124} It is not that new roads, new fire stations, and new parks are costless in North Dakota. Rather, it is that North Dakota jurisdictions have not been concerned about a rising population and infrastructure costs. Meanwhile, the only jurisdiction is southeastern Louisiana that imposes a significant impact fee is St. Tammany Parish, which is located across Lake Pontchartrain from the city of New Orleans.\textsuperscript{125} As a relatively high ground in a mostly flat region, St. Tammany has experienced rapid population growth, in contrast to the stagnant or failing populations elsewhere in southeastern Louisiana.


\textsuperscript{123} \textit{Id.} at 4, table 3.


\textsuperscript{125} See Duncan Associates, \textit{supra} note, at 7.
D. Impact Fees and Suburban Sprawl

There is an important word swirling around this discussion that has not yet been mentioned in this section. This word is “sprawl.” Suburban jurisdictions that are attractive to outsiders, such as Palo Alto and St. Tammany, are typically greatly worried about sprawl. There is, naturally, less concern in thinly populated North Dakota. Indeed, advocates assert that impact fees are an effective means of fighting and reining in suburban sprawl. This section endeavors to show, however, that existing impact fees are relatively ineffective in both limiting sprawl and in encouraging the opposite of sprawl – urban infill.

This essay does not need to catalog the social and environmental harms that many observers have pinned on suburban sprawl, which is defined as low-density housing and commercial development that occupies a large area. A short list of ills will suffice. Sprawl gobbles up valuable farmland and natural areas. Sprawl spreads people apart, necessitating longer commutes and clogging roadways. Sprawl makes it difficult to foster effective public transportation. Sprawl separates houses from jobs and stores, thus requiring excessive automotive use, with a resultant climb in fuel usage and climate-warming carbon emissions. Sprawl encourages larger houses, which use more energy. Sprawl causes social alienation and segregation by encouraging rich people to live far from poor people. Sprawl pulls commerce and wealth away from longstanding urban neighborhoods and older cities, exacerbating their financial and social problems. And Sprawl causes obesity, because it encourages a sedentary,
auto-dominated, lifestyle.\(^{126}\) This essay proceeds on the assumption that it is wise governmental policy to try to discourage suburban sprawl.

Many advocates have touted impact fees as an effective way to fight sprawl. In their 1981 article, Juergensmeyer and Blake cited impact fees as a solution for suburban localities looking to “halt or retard growth” and “improve the quality of life” for existing suburban residents.\(^{127}\) Vicki Been, citing planning scholars, wrote in 2001 that “charging users the marginal cost of providing services to a development will encourage developers to build in areas already served by underused infrastructure, such as infill areas, rather than on underdeveloped agricultural ‘greenfield’ land.”\(^{128}\) David Callies, Robert Freilich, and Thomas Roberts in 2008

\(^{126}\) The literature denouncing suburban sprawl is immense. For interesting and wide-ranging discussions of adverse effects of suburban sprawl, see generally James Howard Kunstler, the Geography of Nowhere (1993); Andres Duany, Elizabeth Plater-Zyberk, & and Jeff Speck, Suburban Nation: The Rise of Sprawl and the Decline of the American Dream (2001); Jane Holtz Kay, Asphalt Nation (1997); and Dolores Hayden & Jim Wark, A Field Guide to Sprawl (2006). A concise summary of arguments against sprawl is Sierra Club, Sprawl Costs Us All (2000), http://www.sierraclub.org/sprawl/report00/. A happier assessment of sprawl is offered by Peter Brueggman, Sprawl (2005). It is not the purpose of this essay to dive into the incredibly tricky and murky waters of sprawl debate, which spread from sociology to physics and medicine. My opinions can be discerned in part in Paul Boudreaux, Looking the Ogre in the Eye: Ten Tough Questions for the Anti-Sprawl Movement, 14 Tulane Envtl. L. J. (2001). Rather, this essay proceeds under the assumption that there is a justifiable legal response to externalities of excessive land usage and harm to the environment caused by suburban sprawl.

\(^{127}\) Juergensmeyer & Blake, supra note 58, at 415, 446.

chided a world without impact fees, in which “the exportation of general revenues to new suburban and exurban areas subsidize urban sprawl.”\textsuperscript{129}

As we have seen, however, impact fees typically work as a fee on population growth. As formulated in most places – in which the fee is fairly uniform across the geography of the jurisdiction – impact fees do little to push new development away from the outskirts of a metro area or to pull housing towards sectors that are already built up. Accordingly, in these places, the only way that impact fees can be construed as fighting sprawl is through the following syllogism:

1. Our suburban jurisdiction, which consists mostly of single-family houses with yards, defines “sprawl” as any new development in our jurisdiction.

2. Impact fees discourage the construction of new houses in our jurisdiction.

3. Therefore, our impact fees discourage sprawl in our jurisdiction.

The flaws in the logic are obvious. First, an important reason that most new housing units in suburban areas are site-built single-family houses is that local zoning laws require it. Most suburban localities demand that the only housing that may be built in much of the jurisdiction be “sprawl”-looking single-family houses with yards, removed from commercial uses. These zoning laws exclude or discriminate against types of housing that are \textit{not} suburban sprawl: apartment buildings, townhouses, and mobile homes.\textsuperscript{130} Thus, the law of impact fees,

\textsuperscript{129} \textsc{Callies, Freilich, \& Roberts, supra note 60, at 199.}

\textsuperscript{130} Depending on the time and place, the legal preference in favor of single-family houses may or may not dovetail with consumer demand. As of 2011, with an economic recession and tight mortgage credit, many metro areas were experiencing a dearth in the supply of inexpensive rental housing – an observation shown by the fact that the costs of rental housing was rising at the same time that housing sale prices were stagnant. (note continued …)
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which ostensibly discourages sprawl, runs counter to the law of zoning, which makes it difficult
to build any new housing other than sprawl. How are the two policies congruent? They work
together to discourage new population growth: impact fees by increasing the cost of development
and discouraging new housing, and zoning laws, by baring the construction of dense housing.
This point underlines the observation that impact fees are in characterized well as a population
tax.

Second and relatedly, impact fees do little to encourage the opposite of sprawl, which is
infill. By imposing fees that are similar in size regardless of the location in the jurisdiction –
whether on the rural outskirts of a suburban area or on an available spot in the middle of an
already-dense suburban sector – these fees do nothing to spur development in this second, infill,
location.\footnote{A famously pithy assessment is that “the only thing that Americans hate worse than sprawl is density.” Robert H. Freilich, “To Sprawl or Not to Sprawl: A National Perspective for Kansas City,” Western Historical Manuscript Collection, Kansas City (1997), http://www.umkc.edu/whmckc/publications/KIMBALL/CNKPDF/Freilich-04-21-1997.pdf.} Infill is, by a truism, the only way that a growing metro area can avoid sprawl. The
fact that most localities’ impact fees do not encourage infill can be explained, once again, by
viewing the fee as a population fee. If a goal of a jurisdiction is to clamp down on its population
growth, uniform impact fees will encourage population growth to move to another jurisdiction.
The great multiplicity of local governments in most American metro areas gives suburban
localities ample opportunity to push new population to other localities in the area. This may be
especially effective if an affluent, well-motivated suburban town is able to impose fees that are
larger and more effective at discouraging new construction than those of its counterparts in less-
affluent, less-organized towns elsewhere in the metro area. Accordingly, we can make this conclusion: *Today’s typical impact fees are more effective at discouraging population growth in a particular suburban jurisdiction than they are at curbing suburban sprawl across a metro area.*

For a fee system to be truly effective at fighting sprawl in a growing metro area, rather than simply moving it around, it would both discourage growth at the suburban outskirts and at the same time encourage infill construction close to old downtowns and areas that are already built up. It is this task to which we now turn.

**IV. CREATING THE IMPACT XAT**

An effective impact fee to discourage suburban sprawl would draw on lessons set forth in Part II of this essay, which considered bulbs, bathrooms, and buildings. These examples showed that legal restrictions which target one discrete behavior – such as by requiring fluorescent lamps, low-flow toilets, or LEED certified buildings, may be both ineffective and relatively ineffective. The more straightforward means of achieving large ends is to address these ends broadly and holistically, through nondiscriminatory fees that discourage the unwanted activity – be it home electricity, domestic water usage, or building energy consumption – wherever it occurs. Taxes on such activity are more effective both because they cover every example of the activity to be discouraged and because they encourage users to look continually for ways to

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132 Moreover, it is common for a developer to be able to avoid impact fee by moving further out – which is the definition of exurban sprawl.
conserve and avoid the tax. But the conservation usage would not be banned, in order to allow specific usage activities that provide great utility to go forward. These lessons help us shape a new system of monetary charges on new housing construction.

A. Distance-Based Fees

A system of fees that would effectively combat suburban sprawl would discourage low-density housing development far from the existing built-up area and encourage new housing close to the older neighborhoods. Just as greater electricity usage triggers larger fees in the domestic taxation model, housing built further away from the built-up areas would be saddled with higher fees. This distance-based system of fees would dovetail with the traditional rationale of fees as recouping governmental infrastructure costs; such costs are likely to be higher the further a development is built from the existing infrastructure.

Consider two hypothetical examples. The first is Jones County, a fairly large expanse of rural areas and one moderate-sized city, Annestown. Founded before the automobile age, six-miles-wide Annestown has a discrete downtown, with a compact “Main Street” in the center of the city. In 1950, Annestown held most of the population of Jones County; outside of the city were farms and a few small villages. The city had a single electrical power plant and water reservoir on the edge of the city boundary, as well as a few police and fire stations and a couple of public parks, all of which satisfied the demands of the compact city. Since 1950, however, suburbs have sprung up willy-nilly in the formerly rural areas of Jones County. Residents were lured by large houses with central air-conditioning and two-car garages, as well as large suburban lawns; Jones County’s population continued to grow, as it has almost always has. But
Annestown’s population was stagnant, and many neighborhoods in and close to Annestown held vacant lots and underutilized blocks.

The Jones County government decided in the 1990s that the rate of sprawl was too great. The county struggled to keep up with providing services to the new suburban development. Moreover, much of the new suburban development occurred in locations that had longed served as farmland for which Jones County was particularly renowned; many subdivisions sent pollution and sediment into small rivers that served as unique habitat for local fish and fowl. In the early 1990s, an impact fee imposed evenly for each housing unit across Jones County helped with the county’s finances somewhat, but did nothing to steer new housing in or close to Annestown. The county considered creating a wide suburban development border to encircle Annestown, with impact fees considerably higher outside the border than in. But the county worried, with good reason, that this border could cause developers to rush to build around the very edges of the border before others were able to do so.

A distance-based impact fee system would be based on the distance from downtown Annestown. Although the numbers could be flexible, of course, one idea would be to impose a moderate fee for a development located three miles from downtown (that is, just outside the city limits), but that increases as development move further out. The fee could be trebled for a development fifteen miles out. There are no zones; the fee is calculated easily simply through the location of the development, on a sliding scale. Because the distance away from Annestown roughly approximates the marginal cost of additional government infrastructure, this distance-based fee system fits with the fiscal purposes of impact fees and discourages developments further into the rural areas of Jones County. It also fits the requirements of the Nollan/Dolan test.
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No fee at all is charged for new housing within the city limits; such units are infill housing. Although there may be some small infrastructure cost to new housing in the city, Jones County knows that its population is going to grow along with the United States and that waiving fees for infill in the city would avoid having the impact fee become a population fee.

In the real world, one of the vanguards of the idea of distance-based fees has been the city of Lancaster, California. Located in the dry Antelope Valley, about 50 miles by air (but almost 70 by highway) across the San Gabriel Mountains from central Los Angeles, Lancaster was a small town of fewer than 4000 persons as recently as 1950. But as the nearby Edwards Air Force Base drew people to the valley in the Cold War, Lancaster grew rapidly, a phenomenon that in recent years has been fueled by the expansion of the Los Angeles County population through the San Gabriel passes and the flight of many families seeking relief from the density, high home prices, and social pressures of the big city. Lancaster’s population mushroomed to more than 48,000 by 1980; in 2010, it held greater than 156,000 people. In the 1980s, not long after the city’s formal incorporation, Lancaster imposed traditional impact fees that were uniform across the city (and thus served in effect as a population fee); this did little to discourage sprawling development.133 In 1992, the city instituted an Urban Structure Program, through which a distance “surcharge” is imposed on developments outside of the core downtown service area, with the surcharge rising the further a development lies from the service area or other existing infrastructure sites.134 The fee covers costs of roads, drainage systems, water, sewage,


134 Lancaster, Cal., City Code title 15.64 (2011).
schools, libraries, and sheriff, among other costs. Readily calculable through computer software, the fee include charges for not only for new capital construction, but also for increased future maintenance costs necessitated with housing far from the city’s center. By some accounts, the fees have discouraged sprawling subdivisions and fostered housing infill near the city center, with a concomitant revitalization of the downtown area.

A second hypothetical of application of distance-based impact fees is somewhat more sophisticated. Like Jones County, Smith County also is large in size, but its oldest town, Willstown, has always been quite small. But two wide highways that cross at Willstown in the 1950s facilitated housing development along the cross formed by the two routes. A progressive government in the 1960s established bus routes along the highways to serve (and encourage) the new developments. By 1980, nearly all the jobs and business in the growing Smith County were located, not in the still-tiny Willstown center, but for miles along the two highways. Government services in Smith County were provided mostly through the county, not town, government. In response to the population patterns, the county built schools, police and fire stations, and large sewer lines, along the two routes. Housing and commerce continued to sprout

135 Id.


This is not to say that Lancaster is an untroubled paradise. Its modest housing prices for southern California, combined with over-construction during the housing boom of the early 21st century, have attracted many low-income households. The city’s mayor complained in 2011 that Lancaster had become a “dumping ground” for the poor of Los Angeles County. The city was sued in a lawsuit alleging that the city has unlawfully targeted Latino and black residents who receive housing vouchers under the federal “section 8” program. See Jennifer Medina, Seeking a Better Life, Section 8 Renters Encounter Resistance, N.Y. TIMES, Aug. 10, 2011, http://www.nytimes.com/2011/08/11/us/11housing.html?_r=1&emc=eta1.
up further out along the highways; by the year 2000, low-density development ran almost continuously for twenty miles along both routes, far from the compact borders of Willstown and far into the unincorporated areas of the county. This development pattern more closely resembles that of many of today’s small American urban areas, in which development is strung out along key road routes.

By the housing boom of the early 21st century, however, Smith County developers broke away from the pattern of development near the two highways. Seeking cheaper land and more space to build large houses, developers built housing subdivisions many miles from the two crossing highways, in locations that previously had been rural. The new construction spurred debate over “sprawl.” Serving the new subdivisions strained Smith County infrastructure finance; meanwhile, new developments cut down hundreds of acres of the county’s famous forests (mostly on private land), which had been the state’s largest and most biologically diverse. Some called for large impact fees; others for fees based on the distance from the center of Willstown, using the success of Lancaster, California, as a model.

Here, an impact fee policy that would be most effective at curbing Smith County’s sprawl would take into account its distinctive development pattern. An efficient distance-based fee system might calculate the sum of the distance of a planned development from the center of Willstown plus the distance from the closest of any of the two highways, where much infrastructure and business already exist. Thus, a planned development that was seven miles from Willstown but one mile from the closest highway would be charged through a sum of eight miles. This would result in a lower fee than a development that was only six miles from Willstown but also four miles from the closest highway, resulting in a fee based on a total of ten
miles. Such a fee system would discourage distant sprawl and encourage relative infill either close to Willstown or close to either of the two existing highways.

B. Size-Based Fees

While distance-based fees are fairly straightforward and self-explanatory, they do not fully address the concerns associated with sprawl. Once more, we can rely on the lessons from Part I – that an effective system should broadly and even-handedly encourage conservation by imposing taxes based on the scope of usage of the resource to be conserved. In the case of suburban sprawl, the putative harms consist of low-density, profligate usage of land. The policy imperative calls for denser construction to house a growing American population in a more efficient, less land-intensive manner. Accordingly, an effective impact fee would be based on the amount, or size, of the land occupied. This is the most innovative aspect of a proposed new approach to impact fees.

At one level, a fee based on the size of the land occupied is not revolutionary. After all, charges for electricity, water, and gas usage are all traditionally based on usage – the more of the resource used, the higher the charge. This charge encourages resource conservation.

Although neoclassical, free market economics warns that any government intervention in the market tends to distort the goal of wealth maximization, it also insists that, if it is public policy to discourage a certain activity, imposing a simple tax is likely to be least disruptive legal step. The

137 It is true that purchasers of large tracts of land typically pay more through the privates land transaction. But this private transaction did not account for the externalities that the model assumes exists. The imposition of a governmental fee addresses these externalities.
tax will discourage some, encourage others to reconsider their actions, but allow the activity to go forward for whom there is great benefit (such as personal utility or large profit) in engaging in the activity. A tax is more efficient than an inflexible prohibition.\textsuperscript{138}

A tax on the size of residential land would constantly and insistently encourage the conservation of such land. For suburban subdivisions, developers would be encouraged to build more densely, such as by laying out smaller yards, because the saving of land would be result in lower taxes – a savings that would be passed on in part to purchasers. Homebuyers would be encouraged to seek out housing on smaller lots. Depending on the size of the monetary charge, it could form a powerful incentive in discouraging sprawl – low-density housing with profligate usage of land – and encouraging infill and conservative usage of land. Single-family houses that occupy a sprawling 20,000 square feet of land would be charged based on this large amount of footage. Housing in multi-family buildings, such as apartments and condominiums, would be charged based on their \textit{pro rata} share of the parcel’s size; one condominium unit in a building of 100 units would pay 1/100 of the total footage of the complex, parking lots included, of course.\textsuperscript{139}

\footnote{138 See sources cited in note 16.}

\footnote{139 Such a sized-based tax might appear to be unfair for owners of large parcels of land, who heretofore have not had to pay a sized-based tax. This perceived inequity could be dealt with by imposing the fee only on housing units purchased after the change in law, or by grandfathering in existing owners. Over time, this grandfathering would disappear, as with nonconforming uses in land use law.

Another potential fairness issue concerns farms and other residential and uses that are large by necessity. There are many potential ways to address this perceived inequity; one way would be to exempt acreage used in farming (recognizing the potential for abuse, of course); many current property tax and zoning laws already give favorable treatment to farms.}
There are myriad political and economic issues that would be affected by such a step. This essay cannot respond to all of them thoroughly, but it addresses some, albeit cursorily. First, a fee on sprawling land use is justified by the putative observation that such land use imposes external costs, or externalities. It is true that the purported external costs of sprawling land use—in terms of extra air pollution, loss of natural habitat, and obesity—are somewhat different from the costs of extra roads or schools. Local governments might need additional statutory authority to impose a cost-of-sprawl fee, but it is not conceptually much different from existing fees. Indeed, to the extent that local governments are permitted, as they are in many locations, to impose fees for harms to “affordable housing”—on the rationale that usage of land suitable for housing is being taken by a developer’s construction of more expensive housing—the imposition of sprawl-based fee would be within this category.

Second, a monetary charge based on distance and size of housing land could supplement or even replace the system of property value taxes that currently forms the heart of most local jurisdictions’ finances. Both social critics and economists have criticized property taxes on many fundamental grounds. First, it is asserted that property taxes are less “fair” than income taxes because they tax status, as opposed to money received. Because property taxes tend to be based on the current value of the property, regardless of how long the owner has occupied it, the tax can fluctuate greatly, without any conduct of the taxpayer contributing to the change. Free market economists criticize property taxes because they in effect tax the creation of wealth—a landowner that develops land in an especially profitable manner ends up paying more in tax.140

Concerns over unfair or excess taxation could be addressed in part by having the distance and size-based tax replace (in whole or in part) the current value-based tax. Under such a system, a high-value condominium close to the central city would pay a much smaller tax than a moderate-sized home in a suburban development. The arguable inequity of such a result could be addressed by shifting the supposedly progressive nature of the value-based property tax to an income tax (which by definition is progressive), while decreasing the overall tax burden of the now amended property tax system. In a largely suburban America, of course, size of housing unit tends to correlate fairly well with wealth. Moreover, modest-income households could be given assistance through a conservation baseline of the sort outlined in Part I. The size-based tax could exempt any housing unit of a size equal or smaller to the baseline size, which would be the housing footprint of, say, the smallest one percent of all units in the region.

The legacy of Henry George must also be addressed. In the 19th century, this American writer argued for a “single tax” based on the size of land.\textsuperscript{141} George, who argued for communal ownership for property, relied on arguments of unfair “rent” received by large landowners, with many echoes to the writings of Karl Marx.\textsuperscript{142} There are few similarities between the tax proposal set forth in this essay and George’s philosophy. George was concerned about the supposed unfairness of wealth earned by landownership; the current proposal targets the putative social

\textsuperscript{141} \textit{Henry George, Progress and Poverty: An Inquiry into the Cause of Industrial Depressions and of Increase of Want with Increase of Wealth} (1879).

\textsuperscript{142} \textit{Karl Marx, Capital} (1867) (arguing that owners of capital unfairly earn through the labor of those who work for the capitalist enterprise).
harms of sprawl, a concern that simply did not exist in the era before the automobile. Accordingly, the current proposal should not be tarred as being George’s ideas warmed over.

A final concern is the potential for gentrification. While some worry about sprawling suburbs of new housing, others fret over the phenomenon of the replacement of low-income people by pioneering affluent people in old urban neighborhoods. Among the concerns is that racial minority households, who typically lease their units, are priced out of neighborhoods in which they or their families have lived for decades, but that are newly attractive to more affluent white households. There should be no doubt that encouraging infill may spur an in-migration of affluent households to some neighborhoods that previously have been home to low-income households. This is true of any effort to make central cities more attractive to prospective residents. The putative harms of gentrification can be addressed by techniques such as protections for existing tenants and encouragement of new city housing developments in spots other than existing rental housing. Nonetheless, it is beyond the scope of this essay to determine the appropriate balance between encouraging infill as a solution to sprawl and unease over gentrification.

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143 The concern over gentrification exists largely in popular and successful central cities, such as New York, Chicago, San Francisco, and Washington, which are attractive to affluent households. There is less of concern over gentrification in cites with weak economies, such as Detroit, St. Louis, or Memphis, in which the city’s population has fallen for decades and in which there is little attraction for affluent in-migration.

144 Cities in Europe that have always retained an attractiveness to affluent persons, such as Paris and London, have experienced, as their metro areas have grown, the phenomenon of lower-income households being pushed largely to less-attractive suburbs. Both the largely non-white banlieues of Paris and the suburban poor suburban towns of London have been flashpoints for social unrest, in part because of the perception that these towns are excluded from the economic success of the still mostly white central city.
C. Terminology

Is the proposal for monetary charges on new housing based on distance and size properly characterized as a fee or a tax? The distinction is not always clear. To generalize, law states that a tax is a broadly imposed charge that is designed to serve as a revenue source for the public at large, whereas a fee is narrowly targeted on those seeking a particular service. As we have seen, some early laws imposing charges on housing developers were scuttled because they were characterized as taxes that the local government had no authority to impose under state laws. Today, local governments almost uniformly characterize the charges as fees, in that the charge is designed to pay for governmental services necessitated by the new development. But local governments have pushed the barriers of this distinction. As note in the significant case from Lemoore, California, discussed above in Part III, a city may impose a fee without having specific plans to use the money immediately; it may use the fee money to bolster a fund for future use. In the Culver City, California, case the city imposed a fee to help pay for public art – not necessarily a service that the developer needed or even desired. With this backdrop, it is arguable that charges for distance and size are properly characterized as fees; the wide ranging effects of sprawl, such as degradation of the environment, are indeed “costs” that sprawl saddles on local government, just as it is saddled by the costs of added roads, sewers, schools, and fire protection. In states where the definition of fee is narrow, courts might disagree with this assessment.

For purposes of this essay, however, it is worthwhile to distinguish the proposal for monetary charges based on distance and size from more traditional impact fees. I propose,
jocularly, the term impact xat, which has not previously been used in the English language, and which is distinguishable from the other three-letter term that instantly creates political complications when it is surfaces. Unlike a routine tax, a xat is employed in order to compensate for specifically recognized social and financial impacts of suburban sprawl.

D. The Impact Xat at Work

Here is how the impact xat would work, using our hypothetical jurisdictions. First, reconsider Smith County, which holds small Willstown at its center, and most of its population along the two intersecting highways. Desiring to limit sprawl away from the highways, in order to limit infrastructure expenses, and to protect the county’s distinctive forest ecosystem, the county instituted a sophisticated housing impact xat. Under this system, the charge rises sharply the further a housing development sits from Willstown or one of the highways; the fee also would vary by the size of the footprint of each housing unit.

Assume further that a developer seeks to respond to a demand for new housing in Smith County by considering three potential sites for a new development. The first would be a traditional greenfield development, four miles from the closest highway, on inexpensive forest and farmland. The development plan would call for single-family houses with two-car garages

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145 This would not be the first time that discourse sought a new term to avoid using the political epithet “tax.” In the budget debates of 2011, lawmakers sought to avoid admitting that they were considering tax increases by stating, instead, that they were considering increases in “revenues.” See, e.g., Guy Raz, Rep. Bass Discusses Letter To Supercommittee, NPR “All Things Considered” broadcast, Nov. 4, 2011 (noting usage of “revenues” instead of “taxes”), http://www.npr.org/2011/11/04/142031019/rep-bass-discusses-recommendations-for-budget-cuts; Editorial, The ‘tax’ versus ‘revenue’ word game, CHATTANOOGA TIMES FREE PRESS, July 31, 2011, http://www.timesfreepress.com/news/2011/jul/31/tax-vs-revenue-word-game.
on large lots of landscaped zoysia grass, with wide, curving roads and cul-de-sacs. The
development would revolve around a large fountain area in the middle of an expanse of grass and
carefully planted flowers. From experience, the developer knows that this sort of development is
appealing to many American families. Absent a sophisticated impact fee system, this option
might be the most profitable, considering the inexpensive land cost and guaranteed strong
demand from home-seeking families. But the sophisticated impact fee takes into account the
long distance from the highway and the large lots; the total impact xat would run to, perhaps,
$60,000 per house.

The second option would be a development that is only two miles from a Smith County
highway, with a land cost that is somewhat higher than the first option. This plan also would
include large houses of about the same indoor square footage as with the previous option, but
many of the units in this second option would be three-story townhouses, attached to neighbors,
with small backyards. It also would include a moderate-size park for residential use. Because
this development would sit fairly close to a highway and because the typical unit would have
only a moderate footprint (note that the indoor square footage of the house does not matter *per
se*), the average impact xat here is only $20,000 per unit. This smaller charge skews the
developer’s profit calculations per unit towards this second, less-sprawling option.

The third option is to fill in a spot only one block off a Smith County highway. The spot
was formerly the location of a small strip mall with a now-closed bookstore, record store, and
video store; it has recently been rezoned for residential use. This development option would call
for a mix of apartment “lofts” in four-story buildings of modern design, alongside a handful of
tall townhouses. Many of the units would be served by a parking garage. Although there would
be no new green park, the developer would be able to “market” the development through the fact
that the county government runs an existing public park just two blocks away. Because of its close proximity to the highway and the small footprint per unit, this development would come close to the conservation baseline, in which no fee is charged. Here, the typical impact xat per unit would run only $500.

Because of the impact xat differentials attributable to distance and size, the developer, who otherwise might quickly have chosen the first, traditional sprawling option, is encouraged to reconsider. Market research shows that many prospective homebuyers would prefer a somewhat less-expensive home in the third option. Depending on predictions of demand and cost, the developer might well decide that the third option, on which the county government would impose a much smaller xat, is the most profitable approach to a new housing development. The impact xat would discourage sprawl.

But the system would not prohibit sprawl. As with the proposals to tax electricity, water, and energy, instead of mandating technology, the xat system would allow for flexibility.

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146 Because the xat would merely discourage, not prohibit sprawl, it differs from the famous “Ramapo plan,” created by Professor Robert Freilich in 1969, in which development would development would not be permitted unless it were located close to a number of existing government services. Created for the town of Ramapo, N.Y., the Ramapo Plan, as enacted, established a point system for the town’s decision whether to approve a new housing development. Proximity to existing public sewers, parks, roads, and other services gave a prospective development a certain number of points. If the development accrued a sufficient number of points (which it could do only by being close to existing services), it was permitted; if it did not have sufficient points, it was not permitted. See Golden v. Planning Board of the Town of Ramapo, 285 N.E.2d 291 (N.Y. 1972), appeal dismissed, 409 U.S. 1003 (1972). The Ramapo plan was a watershed moment, in that it established a precedent for a local government’s taking concrete steps to limit sprawling development. See Edward J. Sullivan & Matthew J. Michel, Ramapo Plus Thirty: The Changing Role of the Plan in Land Use Regulation, 35 URB. LAWYER 75 (2003) (discussing the Ramapo Plan’s importance and legacy). But the Ramapo plan itself lasted only until 1983, when a pro-development government revoked it. Although the system undoubtedly encouraged infill and discouraged sprawl, the plan’s all-or-nothing approach lacked the flexibility of the current essay’s proposal for a xat system.
It would work with, rather than against, market demand. In this way, it contrasts sharply with the approach of an *urban growth boundary*, which to date has been one of the most touted forms of legal regulation to control sprawl. The most famous example is Portland Oregon’s boundary, which since 1978 has made it difficult to build new housing beyond a boundary, which has slowly expanded over time, drawn by a multi-jurisdictional Metro Council across Multnomah, Clackamas, and Washington Counties. While the boundary has achieved success in both slowing suburban sprawl and encouraging infill in Portland itself, the inflexibility of the boundary has created significant flaws. First, the initial boundary was dawn fairly expansively, in order to gain political support; but this precipitated a rush to build to the edges of the boundary. Second, because the boundary included only the three Oregon counties, it spurred distant housing development to distant locations beyond these three counties, and to neighboring Washington state, which lies just across the Columbia River from Portland. Third, the urban growth boundary increased housing prices within the artificial borders. Fourth and finally, the

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148 *See* Randall O’Toole, *The Folly of “Smart Growth,”* REGULATION 21, 22-23 (Fall 2001).


restrictions created resentment among landowners outside the boundary who otherwise would have able to sell to housing developers. Oregon voters in 2006 approved a measure that facilitated legal challenges to governmental restrictions, including the growth boundary. All of these problems mirror the drawbacks shown in the examples of stark regulation of bulbs, bathrooms, and buildings.

To see the contrast between an inflexible growth boundary and a flexible impact xat system, consider another example using our hypothetical jurisdiction. In Jones County, the government seeks to limit suburban sprawl, in part to protect its rivers and farms, and to encourage infill housing close to Annestown, its only major town. It too imposes an impact xat based on distance from the town center and on the size of the housing unit. Once again, a distant, large-lot development might incur an impact xat of $50,000 per unit; a closer-in complex only $20,000; and an infill development in the town would generate a charge of only $500.

But the developer in Annestown is not persuaded by the xat to build close to downtown. The developer’s market research shows that while the sparsely built, rural stretches of Jones County are attractive to prospective homebuyers, homes in the town itself are not. This is because Annestown is unattractive to prospective buyers, by virtue of a high crime rate, poorly regarded schools, and an inefficient local government. Most prospective homebuyers would be willing to pay a premium of more than $50,000 for a home in the rural area, as opposed to the town. These market factors are not something that would be necessary be taken into account by

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151 In 2004, Oregon voters approved a ballot measure that offered compensation for landowners whose property values have been decreased by governmental regulation. See 2004 Oregon Ballot Measure 37, available at http://www.sos.state.or.us/elections/nov22004/guide/meas/m37_text.html (accessed April 21, 2005); see also Blaine Harden, Anti-Sprawl Laws, Property Rights Collide in Oregon, WASH. POST, Feb. 28, 2005, at A1.
an urban growth boundary or by the county government in the formulation of traditional impact fees. But a market-based impact xat system, even in a jurisdiction that seeks to discourage sprawl, would allow for expression of this personal preference, just as a higher tax on electricity would allow those who prefer incandescent light bulbs to continue to use them, as long as they pay the tax. In Jones County, if it transpired that developers still continued to build and sell homes in the rural area, despite the impact xat, the county would be able to use the funds generated by the xat to help mitigate the adverse effects of the sprawl, such as by infrastructure projects to keep sediment out of the local rivers, or by funding an attractive public transportation system in the new suburban areas. The market response also would spur Jones County to pay closer attention to the factors that discourage infill in Annestown.

V. EXPLORING THE REACH OF IMPACT XATS

The idea of a sliding-scale fee – or xat if you will – deserves greater attention as a means of conserving a range of adverse impacts to natural resources. Although impact fees first came to light in response to the externalities generated by pollution, these charges hold great promise for discouraging externalities and encouraging wise resources usage in many fields of human interaction with the physical environment. The possibilities are numerous.

Consider, for one example, the problem of auto traffic – a classic externality. Each new vehicle on a crowded highway imposes a small but incompensable harm to all others behind him or her (although each driver suffers the costs of the others ahead). Clogged highways are an inefficient form of transportation, in that the road may hold only one or two people for every 20 or 30 feet in length of each lane (except in nearly dead-stopped traffic, autos typically are spaced
at least a few feet apart), moving slowly at zero-to-twenty miles an hour (by contrast, a train can fit more a dozen people for each 20 feet of train along a track). One way to *internalize* the costs of added traffic – that is, to make each driver feel some of the cost of their addition the problem – would be to impose a fee based on the physical *length* of the vehicle. The physical space on the road occupied by a single large pickup truck, such as the 20-feet-long Ford F-350, is about *twice* that of an eight-feet Smart car with space in between in traffic; accordingly it is reasonable to assert that the pickup “uses” about twice as much of the public highway as the small car. Government could impose an impact fee based on the length of the vehicles to account for this variable usage. Autos are also an excellent example of an effective potential conservation baseline. Unlike a gasoline tax, for example, which is likely to be felt by poor persons more than rich ones (because the tax is likely to constitute a larger part of a poor person’s income), a conservation baseline for automobiles could be established at the size of the smallest production-model automobile. Buyers of this vehicle would pay no fee at all; buyers of other autos, however, would pay a few that would steadily rise, depending on the length of the vehicle.\(^{152}\) As with all examples, the fee would not legally prohibit anyone from purchasing the vehicle of their desire; rather, the fees would merely make them internalize the external costs to the community.

A more complicated example would involve natural resources, such as forests and trees. Through their roles in creating oxygen, preventing soil erosion, offering wildlife habitat, and other benefits, trees provide valuable ecosystem services.\(^{153}\) It is notable, however, that while

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\(^{152}\) As always in this essay, no attempt is made to assert a definitive monetary amounts in the sliding scale fee. This essay sets forth only a conceptual argument.

\(^{153}\) For a discussion of the concept of ecosystem services, one of the founding works was GRETCHEN C. DAILY, *Nature’s Services: Societal Dependence on Natural Ecosystems* (1997); see also Stephen C. Farber, Robert (note continued …)
wetland landscapes are protected by federal law and a permitting system, there is no coordinated legal system to protect forests. Under an impact xat, government could use a simple formula – based on the number of trees, estimated bird population, and slope of land – to impose a xat on the clear-cutting of trees on private land. This xat would, once again, offer compensation for the loss of ecosystem services generated by the cutting; at the same time it would encourage, but not require, landowners to consider forest conservation in a range of land use activities. Indeed, a variety of adverse impacts to natural resources could be conserved by a range of reasonable and rational impact xats, all of which would both fit within economic justifiable economic frameworks and allow for personal choice.


154 See 33 U.S.C. § 1344 (2011). This section authorizes the Secretary of the Army to issue permit for “discharge” of “dredged and fill” material into “navigable waters.” Such conduct occurs most often in wetlands – places in which shallow water stands for some or most of the year. See 33 C.F.R. pts. 323, 326, 328 (2011) (regulations of the U.S. Army Corps of Engineers).

155 There are a myriad of potential applications of impact xats. As I was competing this essay, the city of Tampa, Florida, proposed to charge citizens more if they throw out an excessive amount of garbage. The idea is called “pay-as-you-throw.” This fee would encourage a variety of life choices that would lead to the generation of less household garbage. The retention of the free collection for small amounts of garbage appears to be a variant of my proposal for conservation baselines. See Elizabeth Parker, *Pay-as-you-throw for Tampa garbage considered*, St. Petersburg Times, Oct. 11, 2011, http://www.tampabay.com/news/environment/pay-as-you-throw-for-tampa-garbage-considered/1196202.
VI. CONCLUDING THOUGHTS

In an age of anti-government politics, it might seem like folly to suggest a new canvas on which to paint a government regulatory system. But the proposal for an impact xat based on distance and size is not simply another big government regulatory program. Charging users of land a fee to compensate for the external costs of their land use is, in contrast to many current government regulations, fully justifiable under modern economic theory. Unlike the traditional model of government regulation of land use and environmental harms, in which political decisions are often made case by case, a xat system would be based on a proven economic showing of externalities and a showing that the fee is proportional to the harm. It also would avoid the politicization that almost inevitably comes with ad hoc decisionmaking – an assertion exemplified by the Solyndra scandal of 2011.\footnote{The concern over ad hoc decisionmaking on government environmental programs is that interests outside of the overarching policy – such as temporary political imperatives – will often trump the overarching goal.}

A notable example of this appears to have occurred in connection with the federal government’s guarantee of loans totaling more than $500 million a solar panel manufacturing firm in California called Solyndra. Here, the overarching policy goal is to create more renewable energy (or, perhaps, to decrease our reliance on non-renewable fossil fuels). In ad hoc pursuit of this goal, Congress and the U.S. Department of Energy decided to establish a program to guarantee loans to solar energy firms. This decision alone was ad hoc, in that such loan guarantees are not necessarily proven the most effective means of achieving the overarching goal. In 2009, the Energy Department completed loans to Solyndra, in large part; it appears, because of administration pressure to make political points through a publicized announcement by either President Obama or Vice President Biden, at a groundbreaking event in California. Despite expression of great concerns over the wisdom of the loan, the Energy Department pushed the guarantee through, during an atmosphere of intense lobbying. An influential Energy department official (whose wife’s law firm reportedly worked for Solyndra) pushed for quick action of the loan guarantee with an email message that, “I have the O.V.P. and W.H. breathing down my neck on this,” referring to the Office of the Vice President and White House. See Eric Lipton & John M. Broder, E-Mail Shows Senior Energy Official Pushed Solyndra Loan, N.Y. TIMES, Oct. 8, 2011, http://www.nytimes.com/2011/10/08/us/politics/e-mail-shows-senior-energy-official-pushed-solyndra-loan.html?scp=1&sq=Solyndra%20Obama%20Emmanuel&st=cse. (note continued …)
buildings show, such fees could allow for considerable flexibility for consumers of products and land. The fees would not command specified conduct; they would merely encourage internalization of costs, with any necessity for government regulatory decisionmaking on a case-by-case basis. Even in the examples of fees on automobile length or tree-cutting, the imposition of fees could became simply a sliding scale factor to be routinely included in a consumer’s or business’s financial decisionmaking.

In the core example addressed in this essay – a tax imposed on new housing construction based on distance and size – there is no doubt that residential developers could readily input a variable impact tax into their decisions of where and what kind of housing to construct. It could transform the practice of impact fees from their current, dubious effect – that of a population tax—into the useful function of discouraging suburban sprawl. Economics would work hand in hand with environmental and social policies to help build better communities.

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Even without political pressure, ad hoc decisionmaking may create a “silo” effect in which early decisions wall out the opportunity for flexibility. For example, if the government had decided in 2006 to foster renewable energy through ad hoc decisions, one of the key decisions might have been to focus money and energy on “fostering solar energy.” Once this decision were made (to the possible exclusion of other methods of achieving the overarching goal), it might have led, in turn, to a decision to “foster American solar energy manufacturers.” In turn, this might have led to “help Solyndra.” Finally, once it became clear, in 2009, that helping Solyndra was not a wise choice, the earlier ad hoc decisions may have foreclosed options of focusing money and energy of other methods of achieving the goal, such as through other forms of renewable energy. ■■■