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MUNICIPAL REVENUES AND LAND POLICIES

Edited by Gregory K. Ingram and Yu-Hung Hong

Municipal Revenues and Land Policies

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Gregory K. Ingram and Yu-Hung Hong

 LINCOLN INSTITUTE
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CONTENTS

<i>List of Illustrations</i>	<i>ix</i>
<i>Preface</i>	<i>xiii</i>
The Importance of Municipal Finance	1
1. <i>Municipal Revenue Options in a Time of Financial Crisis</i>	3
Gregory K. Ingram and Yu-Hung Hong	
2. <i>Financing Cities</i>	26
Robert P. Inman	
Intergovernmental Transfers and Municipal Fiscal Structures	45
3. <i>Intergovernmental Transfers to Local Governments</i>	47
David E. Wildasin	
COMMENTARY	77
Michael Smart	
4. <i>Trends in Local Government Revenues: The Old, the New, and the Future</i>	81
J. Edwin Benton	
COMMENTARY	113
Jocelyn M. Johnston	
5. <i>Creative Designs of the Patchwork Quilt of Municipal Finance</i>	116
Michael A. Pagano	
COMMENTARY	141
Carol O’Cleireacain	

Broad-Based Local Taxes and Development Impact Fees	145
6. <i>The Contribution of Local Sales and Income Taxes to Fiscal Autonomy</i>	147
John L. Mikesell	
COMMENTARY	179
Cynthia L. Rogers	
7. <i>The Effects of Development Impact Fees on Local Fiscal Conditions</i>	182
Gregory S. Burge	
COMMENTARY	213
Albert Saiz	
8. <i>A New Financial Instrument of Value Capture in São Paulo: Certificates of Additional Construction Potential</i>	218
Paulo Sandroni	
COMMENTARY	237
Margaret Walls	
Financing Submunicipal Services	241
9. <i>Governance Structures and Financial Authority in Submunicipal Districts: Implications for Fiscal Performance</i>	243
Robert J. Eger III and Richard C. Feiock	
COMMENTARY	268
Richard Briffault	
10. <i>Does a Rising Tide Compensate for the Secession of the Successful? Illustrating the Effects of Business Improvement Districts on Municipal Coffers</i>	271
Leah Brooks and Rachel Meltzer	
COMMENTARY	303
Lynne B. Sagalyn	

11. <i>Does TIF Make It More Difficult to Manage Municipal Budgets? A Simulation Model and Directions for Future Research</i>	306
David F. Merriman	
COMMENTARY	334
Mark Skidmore	
12. <i>Homeowners Associations and Their Impact on the Local Public Budget</i>	338
Ron Cheung	
COMMENTARY	367
John E. Anderson	
Capital Financing of Infrastructure	371
13. <i>Complex Debt for Financing Infrastructure</i>	373
Jeffrey I. Chapman	
COMMENTARY	395
Mark D. Robbins and William Simonsen	
14. <i>Prospects for Private Infrastructure in the United States: The Case of Toll Roads</i>	399
José A. Gómez-Ibáñez	
COMMENTARY	428
José C. Carbajo	
Comparisons of the Property Tax with Other Revenue Instruments	431
15. <i>An Analysis of Alternative Revenue Sources for Local Governments</i>	433
David L. Sjoquist and Andrew V. Stephenson	
COMMENTARY	474
William F. Fox	

16. <i>The Best of Times or the Worst of Times? How Alternative Revenue Structures Are Changing Local Government</i>	476
Tracy M. Gordon and Kim Rueben	
COMMENTARY	497
Michael J. Wasylenko	
<i>Contributors</i>	507
<i>Index</i>	511
<i>About the Lincoln Institute of Land Policy</i>	536

7

The Effects of Development Impact Fees on Local Fiscal Conditions

Gregory S. Burge

Development impact fees are one-time monetary levies, predetermined through a schedule adopted by a local government unit, that are assessed on developers during the permitting approval process.¹ Revenues from impact fee programs must be earmarked for capital expenditures related to public infrastructure expansions (such as roads, schools, parks, libraries, fire, water and sewer, and many others) that are needed to accommodate growth. Recent estimates suggest that nearly 1,000 local governments across the United States use impact fees to raise revenues to help pay for valuable infrastructure to be provided concurrently with new development (Nelson et al. 2008). Although impact fees are a relatively new revenue-raising mechanism, they have rapidly become an important category of own-source revenue and contribute to the changing landscape of local public revenues. For example, in Florida impact fee revenues were nearly \$2 billion during fiscal year 2005–2006 and have increased more than tenfold over the past two decades. While impact fees are likely to continue to be most prevalent in the southern and western portions of the United States, they are important revenue-raising mechanisms for rapidly growing suburban communities in other regions as well.

The explosion in impact fee programs was attributable to a confluence of events during the mid- to late 1970s, as outlined in Altshuler and Gómez-

1. Although *impact fee* and *development fee* are the two most common labels for this fiscal instrument, terms such as *capacity fee*, *facility fee*, *capital recovery fee*, *system development charge*, *expansion fee*, and *mitigation fee* are all commonly used by communities. The term *ex-action* is often used in the literature when monetary impact fee programs are discussed jointly with the less formal practice of requiring in-kind contributions from developers.

Ibáñez's (1993) pioneering work, *Regulation for Revenue*. As household income stagnated during the late 1970s, persistent inflation caused property values and, in turn, property taxes, to rise dramatically. Taxpayer resentment created a hostile environment for property taxes, and revenues as a percentage of local spending have declined steadily since, currently accounting for less than one-quarter of all local government revenue (Brunori 2007). While existing local revenue sources such as intergovernmental transfers and local option sales taxes were able to pick up some of the slack, new fiscal tools were also created. Novel mechanisms such as business improvement districts (BIDs), tax increment finance zones (TIFs), homeowners associations, and impact fees have, to some extent at least, blurred the distinction between public and private financing of local public services and between taxes and fees for service.

Richard Bird recommended that "Whenever possible, local public services should be charged for" (1993, 212). This makes sense. But consumption of local public services and the costs incurred in their provision are not always straightforward. Many public services can be characterized as having large initial costs associated with capacity creation, combined with lower costs associated with ongoing use. Framed in that light, impact fees create a direct link between the upfront capital costs and the subsequent beneficiaries of those services, and could be characterized as efficient prices—internalizing a previously unaddressed externality that new residents impose on existing residents.² They are then, by design, a revenue mechanism tailored to growing communities.³ In this way, impact fees can be thought of as an attempt to more closely link the revenue and expenditure side of the equation, something that is, in and of itself, intuitively pleasing to both scholars and practitioners of local public finance.⁴

At the same time, impact fees are no panacea. Critics have consistently voiced concerns about efficiency and equity implications of impact fee programs.⁵

2. In fairness, previously dominant methods of financing large infrastructure projects included issuance of general obligation bonds, which were clearly intended to spread out the large upfront costs over many years' worth of users of the services. Also, for the moment ignore the fact that the current existing residents were, by definition, all new residents at some point and likely moved into communities that did not ask them to pay their own way. The distributional effects of impact fee programs across generations and/or across groups more (less) likely to move into newer (older) communities are beyond the scope of this investigation, but remain an interesting topic for future research.

3. Those interested in factors influencing the likelihood of impact fee adoptions should see Jeong (2006).

4. Also, impact fees can be characterized as being at least tangentially related to the large literature on two-part pricing, where the impact fee is the fixed price and property taxes (along with other forms of taxation placed on property owners in the community) serve as the variable price.

5. See the Web sites of the National Association of Homebuilders (<http://www.nahb.org>), the National Association of Realtors (<http://www.realtor.org>), and the Urban Land Institute (<http://www.uli.org>) for a sampling of positions against impact fee use.

Perhaps the most common fear has been that impact fee programs may have adverse effects on the availability and affordability of housing—in particular, of smaller homes and rental housing. Another is that impact fees may drive away economic development and stifle job growth. Several theoretical and empirical investigations have examined these critical concerns. The present study is informed by this literature and accordingly reviews its main conclusions in later sections.

The main questions this chapter addresses are as follows: first, what are the full effects of impact fee programs on local revenues? Although this question is of critical importance to understanding the changing landscape of local public finance, it is somewhat poorly understood to date, in part because of the significant indirect effects impact fee programs have on aggregate property tax revenues.⁶ Additionally, this chapter considers whether the best and most recent data on impact fees across the United States suggest that communities have set impact fees at levels commensurate with the net fiscal impact that new developments actually impose on communities. Or, alternatively, have communities priced entry in attempts to capture rents that may be associated with having local monopoly power over unique resources (location and other nonreplicable amenities)? Throughout the discussion, attention is also given to the possibility that impact fees levied on residential development and those levied on nonresidential development may have differential effects on local revenues. At times a distinction is also drawn between impact fees that cover costs related to water and sewer infrastructure (utility impact fees) and those earmarked for spending on roads, schools, parks, libraries, police, fire, and so on (nonutility impact fees). Several important features, including the point of collection and control over spending, differ between these two types of impact fee programs.⁷

6. Other indirect effects on revenues are also possible. The scope of the present investigation does not include an examination of the potential effects of impact fee programs on sales tax revenues and intergovernmental transfers. However, this choice does not imply that these relationships are trivial. To the extent that impact fees may potentially affect the location of new residential and commercial development, local option sales tax revenues may be affected over time. Additionally, if states allocate aid to localities based on need for spending compared against ability to raise sufficient revenue, with dollars flowing to the most pressing situations, a reasonable conjecture is that impact fee programs could have a negative effect on intergovernmental transfers. For now, detailed empirical evidence on these issues is not present in the literature. Both relationships would benefit from the attention of future research.

7. Utility fees are nearly always collected by the utility company itself (even if this service is privately contracted out), while all other categories are typically collected by local planning or permitting departments. For a more detailed discussion of the various conceptual differences between utility and nonutility impact fee programs, see Burge and Ihlanfeldt (2006a). Later portions of this chapter highlight a few key relationships where the empirical literature has already shown that the two categories of impact fees have differential effects. Future research investigating the causes and consequences of impact fee programs as well as their effects on efficiency and equity should account for the various differences between these two categories of impact fees.

The discussion in the following section considers these related questions. Evidence from recent nationwide impact fee surveys and privately compiled historical impact fee panel data from Florida are used to document the trends that have played out in the actual implementation of impact fee programs over the last three decades. Both the direct and indirect effects of impact fee programs on local revenue streams are discussed.

Impact Fee Programs and Local Revenues —————

Impact fee programs have a direct positive effect on local revenues, given that development is actually taking place in the community, but they are also expected to have somewhat nuanced indirect effects on other sources of local revenue. It is worth noting that impact fee revenues are earmarked and must be spent on the actual infrastructure category to which they were designated in ways that pass a “rational nexus” test (Nicholas and Nelson 1988). That is to say, it must be shown under reasonable legal standards that the infrastructure actually benefits the users of the newly developed property. Hence, impact fee revenues are not as fungible as other traditional revenue mechanisms. However, it is reasonable to assume that impact fee revenues could free up more flexible revenue sources to be used for alternative spending.

DIRECT EFFECTS OF IMPACT FEES ON LOCAL REVENUES

The direct effect of impact fees on local fiscal conditions comes from total realized impact fee revenues, which are simply the product of the relevant rate (impact fee) multiplied by the rate of construction per time period, summed across each type of property. Before moving further, it is worth presenting a snapshot of the nature of impact fee rates across the United States. The data come from Duncan and Associates, who annually compile a survey of local governments. The 2003 and 2008 surveys are used presently.⁸

Table 7.1 provides several details of the current impact fee landscape in the United States. While column 3 shows that municipal governments are the primary level of implementation in most states, Florida and Maryland are notable exceptions. Additionally, in several states both municipal and county governments levy fees with some frequency: Colorado, Georgia, Illinois, North Carolina, and Washington are examples. It is reasonable to conclude that, for any given state, whatever level of government is most closely involved with decisions related to local infrastructure finance and/or local land use regulation and

8. The data from these surveys do not reflect exhaustive coverage of jurisdictions using fees, nor are they generated using a random sampling process. The survey is, by construction, biased toward capturing monetary impact fees as opposed to in-kind contributions (e.g., land, streetscape, or paying directly for off-site streets and/or parks). However, to my knowledge, this is still the most detailed nationwide data set available. See <http://www.impactfees.com> for more details.

Table 7.1
Nationwide Impact Fee Usage

	Sample	Implementation Level ^a	Total (\$)	Nonutility (\$)	Road	Utility	Park	Library	Fire	Police	School
Arizona	31	Municipal	10,436	5,874	✓	✓	✓	✓	✓	✓	—
Arkansas	4	Municipal	1,816	819	✓	✓	—	—	✓	✓	—
California	38	Municipal	27,982	19,506	✓	✓	✓	✓	✓	✓	✓
Colorado	17	Both	9,843	5,697	✓	✓	✓	✓	✓	✓	✓
Delaware	1	County	9,321	1,157	—	✓	✓	✓	✓	✓	—
Florida	68	County	10,508	9,320	✓	✓	✓	✓	✓	✓	✓
Georgia	6	Both	1,969	1,969	✓	—	✓	✓	✓	✓	—
Hawaii	1	Municipal	1,836	1,836	✓	—	—	—	—	—	—
Idaho	2	Municipal	7,693	4,001	✓	✓	✓	—	✓	✓	—
Illinois	4	Both	4,422	2,597	✓	✓	✓	✓	✓	✓	✓
Indiana	2	Municipal	4,100	2,900	✓	✓	✓	—	—	—	—
Kansas	3	Municipal	4,765	3,050	✓	✓	✓	—	—	—	—
Louisiana	2	Municipal	2,980	1,905	✓	✓	—	—	—	—	—
Maryland	10	County	11,137	8,798	✓	✓	✓	✓	✓	✓	✓
Missouri	2	Municipal	861	861	✓	—	—	—	—	—	—
Montana	1	Municipal	7,160	2,094	✓	✓	—	—	✓	—	—
Nebraska	1	Municipal	4,685	2,800	✓	✓	✓	—	—	—	—
Nevada	5	Municipal	3,623	2,828	✓	✓	✓	—	—	—	✓

(continued)

New Hampshire	4	Municipal	4,111	4,111	✓	—	✓	—	✓	—	✓	—	✓
New Mexico	8	Municipal	7,544	4,879	✓	✓	✓	—	✓	—	✓	—	✓
North Carolina	5	Both	6,635	2,718	✓	✓	✓	—	—	—	—	—	✓
Ohio	3	Municipal	6,585	2,907	✓	✓	✓	—	✓	—	✓	—	—
Oklahoma	1	Municipal	1,347	647	✓	✓	—	—	—	—	—	—	—
Oregon	11	Municipal	12,020	6,929	✓	✓	✓	—	—	—	—	—	—
Pennsylvania	1	Municipal	2,220	2,220	✓	✓	✓	—	—	—	—	—	—
South Carolina	3	Both	5,775	1,795	✓	✓	✓	✓	✓	✓	✓	✓	—
Tennessee	6	Municipal	5,030	4,092	✓	✓	✓	—	—	—	✓	✓	✓
Texas	8	Municipal	3,311	1,520	✓	✓	✓	—	—	—	—	—	—
Utah	8	Municipal	6,981	4,702	✓	✓	✓	—	—	—	✓	✓	—
Vermont	2	Municipal	8,432	8,432	✓	✓	✓	✓	✓	✓	✓	✓	✓
Virginia	2	Both	28,355	38,151	✓	✓	✓	—	—	—	✓	—	✓
Washington	15	Both	9,563	6,436	✓	✓	✓	—	—	—	✓	✓	✓
West Virginia	1	County	12,943	12,943	—	—	—	—	—	—	✓	✓	✓
Wisconsin	4	Municipal	4,518	2,887	✓	✓	✓	✓	✓	✓	✓	✓	—

^a Implementation level does not refer to whether legislative authority has been given to municipal and/or county governments by the state, but to the actual observations in the Duncan Associates survey. If 25% of the state's observations were from each category, the designation "both" is used. Otherwise, the dominant implementing level is shown. The lone exception is Florida, where several municipal-level governments are reported in the sample, but their programs are only shadow programs that follow the levels of the county government. An example is Brevard County, where impact fee levels are either perfectly or nearly perfectly replicated by each of the four cities in Brevard County that are included in the survey results.

Source: Duncan and Associates (2008). All fee amounts refer to a standardized 2,000-square-foot, three-bedroom home on a 10,000-square-foot lot.

zoning will probably be the source of impact fee policies. California easily has the highest impact fee levels.⁹ Looking at nonutility fees in column 5, Florida, Maryland, Oregon, and Washington (in that order) follow California. Column 2 suggests that Florida, California, and Arizona are the three states in which impact fee use is most widespread. Columns 6 through 12 indicate which categories of facilities are eligible for programs in each state. Road, park, and utility fees are the three most commonly observed types of impact fees, whereas school and library impact fees are the most infrequently observed.

The states that use impact fees most intensively are Arizona, California, Colorado, Florida, Maryland, Oregon, and Washington. Recent trends in these states, along with nine others that have at least moderate impact fee use, are documented in table 7.2. The largest absolute increases in impact fee levies between 2003 and 2008 are found in California and Florida, largely due to the increased prevalence of school impact fees in each state. The five states with the most rapidly increasing impact fee levies, in terms of percentage changes, are (in order) Utah, Tennessee, New Mexico, Florida, and Arizona. Note that column 6 reveals that all of these states have experienced double-digit population growth rates during the past decade. Simply put, the variation in the relative importance of impact fee revenues to local governments across the United States goes well beyond the relative magnitudes of the average prevailing fee levels since, unsurprisingly, the states with the highest impact fee levels are also growing the most rapidly. So while it is probably fair to say that impact fee revenues play little more than a trivial role in local public finance in most states, it is equally true that they play an important and rapidly expanding role in several.

Florida is an ideal choice for a more detailed exposition because it exhibits four important characteristics: (1) fees are substantial in magnitude; (2) fees are levied on essentially every major type of infrastructure; (3) fee levels have been rapidly increasing over a long period of time; and (4) fee revenues are being collected frequently because growth has been a mainstay in essentially the entire state.

Table 7.3 presents detailed information on impact fee revenues in Florida counties for fiscal year 2005–2006.¹⁰ In total, just shy of \$2 billion in impact fee revenues were collected in Florida that year. This accounts for roughly 3.5 percent of total own-source revenues for local governments and is just over 8.2 percent of the amount of total ad valorem property taxes collected in Florida the same year. However, an important point is that a great deal of heterogeneity is

9. The discussion in the text purposely omits Virginia and West Virginia. The large average prevailing in each state is clearly driven by a single jurisdiction, while overall impact fee usage is sparse.

10. This is the most recent year for which data are available on the Web site of the Florida Legislative Council on Intergovernmental Relations (LCIR), the office that facilitates the dissemination of these data. Tables 7.3 and 7.4 include 48 of Florida's 67 counties. To be included, at least one entry into the impact fee levies shown on table 7.4 needed to be more than zero.

Table 7.2
Recent Trends in States with Intensive Impact Fee Usage

State	Nonutility Fees, 2003 (\$)	Nonutility Fees, 2008 (\$)	\$ Change	% Change	Population Growth, 2000–2008 (%)
Arizona	2,862	5,874	3,012	105.2	26.7
California	11,389	19,506	8,117	71.3	8.5
Colorado	4,982	5,697	715	14.4	14.8
Florida	4,243	9,320	5,077	119.7	14.7
Georgia	1,541	1,969	428	27.8	18.3
Maryland	5,143	8,798	3,655	71.1	6.4
Nevada	1,592	2,828	1,236	77.6	30.1
New Hampshire	3,526	4,111	585	16.6	6.5
New Mexico	2,034	4,879	2,845	139.9	9.1
North Carolina	2,897	2,718	-179	-6.2	14.6
Oregon	5,334	6,929	1,595	29.9	10.8
Tennessee	1,624	4,092	2,468	152.0	9.2
Texas	1,212	1,520	308	25.4	16.7
Utah	1,763	4,702	2,939	166.7	22.5
Washington	3,501	6,436	2,935	83.8	11.1
Wisconsin	3,942	2,887	-1,055	-26.8	4.9

For inclusion, a state must meet three criteria: (1) be represented in both the 2003 and 2008 Duncan Associates surveys; (2) have four or more jurisdictions reporting in the 2008 survey; and (3) have average nonutility impact fees of \$1,000 or more in both years. Fee amounts in columns 2 and 3 refer to the charges on the same standardized unit described in table 7.1.

Source: Population growth figures, U.S. Census.

present across the state. Columns 4 and 5 show the huge variation in the relative contribution of impact fee programs to local public revenues across the state. Column 5 shows that twelve counties gather more than 10 percent of local own-source revenues from impact fee programs (with three exceeding 20 percent). In terms of impact fee revenue per capita, column 4 shows that three counties have annual impact fee revenues per capita that exceed \$300 and an additional five are above \$200 per capita. For comparison, note that the statewide average for per capita local property tax revenues (also for fiscal year 2005–2006) was just under \$1,250. On the other hand, thirty-six of Florida's sixty-seven counties raise less than 2 percent of local own-source revenues with impact fees (with roughly half of those being zero). In addition to the incredible variation in reliance across different areas within the state, there has been a dramatic increase in overall statewide impact fee revenue over the past two decades. Total impact fee revenues for fiscal year 2005–2006 were 4.5 times greater than revenues for

Table 7.3
Impact Fee Revenues in Florida

County	Impact Fee Revenue, Fiscal Year 2005–2006 (\$)	Population, 2006	Impact Fee Revenue per Capita (\$)	Impact Fee Revenue as Percentage of Total Own-Source Revenue
Alachua	1,969,343	236,977	8.31	0.80
Baker	681,084	25,057	27.18	3.89
Bay	18,248,108	164,184	111.14	10.47
Brevard	59,707,911	531,959	112.24	9.31
Broward	40,769,512	1,772,745	23.00	1.26
Charlotte	17,763,438	153,047	116.07	6.01
Citrus	22,949,770	137,009	167.51	17.38
Collier	77,853,704	313,167	248.60	13.43
Columbia	0	66,809	0.00	0.00
Dade	241,831,850	2,376,343	101.77	5.09
Dixie	113,624	14,864	7.64	0.84
Duval	123,871	842,366	0.15	0.01
Escambia	0	306,621	0.00	0.00
Flagler	10,880,793	82,433	132.00	8.39
Gadsden	105,172	46,373	2.27	0.34
Gilchrist	359,387	16,610	21.64	2.96
Gulf	0	14,013	0.00	0.00
Hernando	32,862,061	163,392	201.12	22.63
Highlands	87,520	97,594	0.90	0.10
Hillsborough	36,365,444	1,161,882	31.30	2.20
Indian River	31,950,600	129,562	246.60	14.71
Jackson	310,556	49,106	6.32	0.91
Lafayette	12,300	7,987	1.54	0.28
Lake	54,996,687	289,214	190.16	15.49
Lee	180,316,684	570,089	316.30	18.10
Leon	0	257,901	0.00	0.00
Manatee	35,140,259	312,197	112.56	8.97
Marion	22,866,530	314,312	72.75	8.04
Martin	13,664,183	138,367	98.75	5.80
Monroe	1,755,690	74,397	23.60	0.83
Nassau	8,012,999	66,505	120.49	8.32

Table 7.3
(continued)

County	Impact Fee Revenue, Fiscal Year 2005–2006 (\$)	Population, 2006	Impact Fee Revenue per Capita (\$)	Impact Fee Revenue as Percentage of Total Own-Source Revenue
Okaloosa	383,557	182,994	2.10	0.26
Okeechobee	0	39,998	0.00	0.00
Orange	366,321,979	1,055,459	347.07	28.08
Osceola	78,173,212	244,522	319.70	19.36
Palm Beach	136,810,286	1,266,352	108.03	5.95
Pasco	109,600,291	445,871	245.81	26.45
Pinellas	9,225,429	922,893	10.00	0.66
Polk	54,767,842	558,023	98.15	8.97
Saint Johns	22,870,618	168,405	135.81	0.11
Saint Lucie	56,793,493	250,270	226.93	10.66
Santa Rosa	4,181,806	144,569	28.93	13.51
Sarasota	64,661,221	368,303	175.57	3.45
Seminole	19,582,010	409,152	47.86	9.52
Sumter	2,311,064	68,118	33.93	4.07
Volusia	31,931,328	495,813	64.40	3.51
Wakulla	543,100	28,844	18.83	5.14
Walton	3,292,655	51,511	63.92	2.40

Note: Because utility impact fees are typically collected directly by the utility company (rather than by the local planning or building permitting department), figures reported to the state likely include only nonutility impact fee revenues. Counties reporting no impact fee revenues, but that have utility impact fee programs, are included in both table 7.3 and table 7.4 for consistency.

Source: Aggregate impact fee revenues and local government own-source revenue data come from the Florida Department of Financial Services. Own-source total revenue by county was constructed by summing county- and municipal-level local own-source revenues. County population figures are from the U.S. Census.

1999–2000 (just over \$423 million) and over 10.5 times larger than revenues from 1993 (just under \$177 million), the first year for which the Florida LCIR reports the data. Although the tenfold increase in revenue from impact fees over such a short time period is impressive in its own right, all the total revenue figures in table 7.3 are actually a considerable underestimation of the overall impact fee charges in the state, because utility impact fee charges typically go directly to the utility company (rather than to the local governmental planning unit).

Table 7.4 presents detailed information about the nature of impact fee programs in Florida over the last two decades. Note that a majority of counties

adopted their programs during the late 1980s.¹¹ Columns 5 through 13 show per unit fee levels (for a standardized home) in 1990, 2000, and 2006 for three different categories of impact fees: utility, nonutility for a residential home, and nonutility per 1,000 square feet for retail development. Of the three categories, utility fees were the early standouts. In 1990, of the counties that used both utility and nonutility impact fees, only Dade, Monroe, and Palm Beach had higher charges per home for the latter than for the former. By 2006 it is easy to see that this relationship had reversed: nonutility fees increased dramatically and began to exceed utility charges for the vast majority of counties where both were present. Note that this was due to rapid increases in the former rather than declines in charges for the latter. And although categories such as roads and parks were responsible for a portion of the increase in nonutility fees, the most influential factor was the explosion of school impact fees. In 1990 only seven counties levied school impact fees at an average prevailing rate of less than \$500. By 2000 this increased to fifteen counties at an average of over \$1,350, and by 2006 twenty-four different counties levied school impact fees at an average rate of over \$3,750. Turning to utility fees, a notable characteristic is their relative stability over this time period. Table 7.4 shows all nominal values for ease of interpretation, but real utility fee levels were actually lower in 2006 than they were in 1990 for sixteen different counties.¹² The explosion in nonutility fees for both residential and commercial property is the driving force behind the growing popularity of impact fees in Florida over this period. This highlights a small but important point: the fundamental nature of the relationship between local revenues and impact fee programs involving utility and nonutility fees is different.¹³ The distinction requires identifying the counterfactual in each case: what would occur in the community in the absence of each type of impact fee?

11. See Burge and Ihlanfeldt (2007) for a detailed explanation of the causes of this rapid explosion. A series of three important court cases in the late 1970s and early 1980s clearly established the legality of the programs in Florida and likely acted as a catalyst.

12. It is not entirely clear why these 16 counties experienced declines in their real utility fee levels while others did not. A potentially relevant fact is that, on average, the counties exhibiting real declines were far more likely to be among the earliest adopters of impact fees in Florida. Burge and Ihlanfeldt (2007) discuss how counties in Florida have overwhelmingly shown a preference for incrementalism when it comes to adoptions of impact fees. They note that “only after a period of time with initially low impact fees do counties increase fees beyond a nominal level or expand their coverage to additional services” (285). One explanation for the observation is that, while the real costs of adding system capacity may have fallen over this time period, most Florida counties in 1990 were still in the early stages of their experience with impact fees. Note that the average initial adoption year of impact fees for the 16 counties exhibiting declines in utility fees was 1985, compared to 1989 for the other 32 counties shown in table 7.4. In fact, for many of the 32 counties showing an increase, the increase was from \$0 to a positive level.

13. See Burge and Ihlanfeldt (2006a, 2006b) for more-detailed discussions of the important differences between utility (water and sewer) and nonutility (all other categories) fees.

Table 7.4
Impact Fee Levels in Florida

County	Year First Used	Population, 2000	Population Growth Rate, 1990-2000 (%)	Utility (Water/Sewer) Impact Fees (\$)			Single-Family Home Nonutility Impact Fees (\$)			Per 1,000 Square Foot Retail Nonutility Impact Fees (\$)		
				1990	2000	2006	1990	2000	2006	1990	2000	2006
Alachua	1992	217,955	20.0	1,249	1,476	1,476	0	0	0	0	0	0
Baker	1991	22,259	20.4	0	1,000	1,000	0	0	1,500	0	0	0
Bay	1987	148,217	16.7	1,718	1,718	1,718	0	0	0	0	0	0
Brevard	1981	476,230	19.4	4,160	4,160	4,160	947	947	6,090	1,304	1,304	2,028
Broward	1977	1,623,018	29.3	2,162	2,469	3,016	827	2,315	2,628	0	979	1,089
Charlotte	1986	141,627	27.6	2,770	4,913	4,913	1,884	2,510	2,510	3,457	3,203	3,203
Citrus	1987	118,085	26.3	2,133	2,133	3,724	1,330	1,433	6,465	2,200	2,200	5,975
Collier	1985	251,377	65.3	1,650	2,850	5,885	874	4,591	11,749	1,853	3,429	17,933
Columbia	1993	56,513	32.6	0	1,725	1,725	0	0	0	0	0	0
Dade	1989	2,253,362	16.3	683	2,447	2,447	879	5,223	5,223	1,749	2,983	2,983
Dixie	1986	13,827	30.6	0	0	0	350	350	525	500	500	500
Duval	1981	778,879	15.7	0	1,166	1,166	0	0	0	0	0	0
Escambia	1990	294,410	12.0	0	1,640	2,447	0	0	0	0	0	0
Flagler	1990	49,832	73.6	2,743	2,621	5,280	646	567	5,307	1,920	1,920	1,998
Gadsden	1996	45,087	9.7	0	450	450	0	0	0	0	0	0
Gilchrist	1999	14,437	49.3	0	0	0	0	1,441	1,441	0	2,183	2,183
Gulf	1999	14,560	15.9	0	650	2,000	0	0	0	0	0	0
Hernando	1980	130,802	29.4	1,592	2,125	3,360	1,471	2,948	9,238	1,717	2,903	6,433

(continued)

Table 7.4
(continued)

County	Year First Used	Population, 2000	Population Growth Rate, 1990-2000 (%)	Utility (Water/Sewer) Impact Fees (\$)			Single-Family Home Nonutility Impact Fees (\$)			Per 1,000 Square Foot Retail Nonutility Impact Fees (\$)		
				1990	2000	2006	1990	2000	2006	1990	2000	2006
Highlands	1994	87,366	27.7	0	3,915	5,251	0	0	0	0	0	0
Hillsborough	1985	998,948	19.8	3,989	3,829	3,550	1,341	2,138	2,063	3,654	3,476	3,353
Indian River	1985	112,947	25.2	4,101	4,096	4,096	1,133	1,523	10,125	1,581	2,170	2,170
Jackson	1997	46,755	13.0	0	2,375	2,375	0	0	0	0	0	0
Lafayette	1986	7,022	25.9	0	0	0	150	300	300	150	300	300
Lake	1985	210,527	38.4	2,288	2,657	3,370	298	2,630	9,944	816	829	3,136
Lee	1985	440,888	31.6	2,225	2,225	2,875	2,167	3,047	7,184	3,446	4,108	5,744
Leon	1989	239,452	24.4	3,001	4,137	4,137	271	0	0	1,014	0	0
Manatee	1981	264,002	24.7	1,880	2,423	2,925	1,664	1,742	11,347	4,690	4,830	6,628
Marrion	1990	258,916	32.9	2,600	2,600	2,600	641	1,359	2,349	1,905	1,627	4,155
Marrin	1987	126,731	25.6	2,280	3,200	3,810	731	5,212	6,956	2,323	5,206	10,347
Monroe	1986	79,589	2.0	2,000	1,760	2,112	2,095	1,534	1,534	2,339	1,398	1,398
Nassau	1987	57,663	31.2	0	1,166	1,166	828	933	2,593	1,886	2,139	3,745
Okaloosa	1988	170,498	18.6	2,000	2,000	4,000	0	0	0	0	0	0
Okeechobee	1995	35,910	21.2	0	1,500	4,100	0	0	0	0	0	0
Orange	1983	896,344	32.3	3,261	3,582	4,600	1,260	4,945	10,617	4,186	6,540	12,961

Osceola	1989	172,493	60.1	3,713	3,870	4,150	1,259	4,087	14,467	2,298	2,298	11,239
Palm Beach	1979	1,131,191	31.0	2,400	3,000	3,425	3,737	6,026	11,367	2,700	4,640	6,768
Pasco	1985	344,765	22.6	2,064	2,056	2,056	1,736	2,166	9,981	2,376	2,960	7,784
Pinellas	1986	921,495	8.2	1,582	2,572	2,572	857	1,632	2,066	1,446	2,723	3,627
Polk	1990	483,924	19.4	2,560	3,890	4,633	847	847	12,388	2,360	2,360	4,478
Saint Johns	1988	123,135	46.9	2,029	3,234	3,661	1,347	2,630	7,992	1,898	1,950	6,856
Saint Lucie	1986	192,695	28.3	2,147	2,090	5,630	1,020	2,748	7,778	1,117	2,054	3,559
Santa Rosa	1995	117,743	44.3	0	1,466	2,533	0	0	1,656	0	0	2,112
Sarasota	1988	325,957	17.3	0	4,362	4,751	2,869	2,638	5,538	4,721	7,595	10,042
Seminole	1987	365,199	27.0	3,091	3,091	3,091	756	2,671	2,671	3,093	2,901	2,901
Sumter	1987	53,345	68.9	2,188	2,700	4,070	0	0	2,393	0	0	6,425
Volusia	1986	443,343	19.6	0	2,873	3,675	900	2,764	8,300	1,213	1,673	3,040
Wakulla	1989	22,863	61.0	0	0	0	564	1,247	1,247	680	1,500	1,500
Walton	1995	40,601	46.3	0	6,045	6,045	0	0	0	0	0	0

Note: The dates provided for initial implementation represent the year in which the fees were first collected rather than the year they were passed by county ordinance. All county population and growth rates are from the U.S. Census. All reported impact fee levels reflect the levies in place on 1 January of the referenced year. Water/sewer utility companies typically levy fees according to a schedule that defines an equivalent residential unit (ERU or other similar naming convention) as a baseline. Most commonly, single-family homes pay this amount regardless of their size. Multifamily units may pay this full amount or some set fraction of it. Nonresidential developments pay the ERU multiplied by their calculated ERUs according to the utility company's detailed schedule regarding the nature of the proposed construction. Single-family home nonutility impact fees calculated using a standardized 1,800-square-foot, three-bedroom home. Per 1,000 square foot retail nonutility impact fees: counties often have a finer level of detail than just the single retail category. However, this category is an intuitive choice for a least common denominator of sorts because it can be found on all schedules for Florida counties.

For utility fees, the counterfactual is straightforward. The utility company is a regulated natural monopoly. The demand for water and sewer service is highly inelastic, and the willingness to pay for these services typically far exceeds the regulated price of the utility company. The process of price setting typically focuses on the principle of cost recoupment such that the local utility authority is allowed to fully recoup its expenditures and make a normal rate of profit on its capital investments. Hence, without impact fees in place to help raise the revenue needed for off-site improvements to the system necessitated by new growth, the utility company would simply be allowed to pass those costs forward to consumers through higher prices. Demand is highly inelastic, so the primary result is a loss in consumer surplus with little overall change in consumption patterns. Note that whether impact fee programs are used to gather the revenues needed to add capacity to the water and sewer system or whether the utility company is allowed to recoup the costs through higher regulated prices, local public revenues are not affected. Hence, the relationship between local own-source revenues and impact fee programs for utility services is actually quite straightforward: there is little expected correlation. The counterfactual for the case of residential and commercial nonutility impact fees is much more nuanced and is considered below.

Importantly, table 7.4 reveals the simple story behind the huge variation in per capita impact fee revenues and identifies the same trend in Florida as for the nation as a whole. A majority of the areas with the most rapidly growing populations also have the highest impact fee levels. The four counties with the highest impact fee revenues per capita are (in order) Orange, Osceola, Lee, and Collier counties. Columns 2 and 3 show how each had well-established programs adopted during the 1980s and each grew rapidly during the 1990s. Hence, it is easy to see why some communities are raising hundreds of dollars of revenue per capita while others raise comparatively trivial amounts. However, while the data clearly show that areas in Florida with the highest impact fee rates also tend to grow quickly, causality could flow in either direction. Hence, the correlation in the raw data is only ad hoc evidence (at best) that impact fees increase construction rates. The next section turns to a more comprehensive consideration of the relationship between impact fee levels and rates of residential and commercial development.

THE EFFECTS OF IMPACT FEES ON CONSTRUCTION RATES: IDENTIFYING THE COUNTERFACTUAL

In addition to understanding the nature of impact fee levels, it is also important to consider the relationship between impact fee levels and new construction. If impact fees reduce residential or commercial construction rates, as many critics claim, then communities should factor this into their revenue forecasts for impact fee programs.¹⁴ However, the empirical trends outlined above suggest that states

14. In the extreme, the Laffer curve principle must apply to impact fee revenues just as it does to any revenue-raising mechanism. An absence of fees by construction implies no revenues.

with intensive impact fee programs have been expanding much more rapidly over the past few decades than states with minimal implementation. Furthermore, counties in Florida with the highest impact fee levels tend to have been the areas that added population most rapidly. Of course, this ignores the important likelihood of reverse causality: places with high previous growth rates or forecasts of rapid future growth are the likely candidates for adopting impact fee programs or raising their current rates. The more relevant question is how impact fee levels affect residential and commercial development relative to development patterns that would tend to be observed in their absence. Therein lies perhaps the most fascinating aspect of work analyzing impact fees: to be accurate and insightful, research must stay mindful of a simple point outlined by Altshuler and Gómez-Ibáñez (1993, viii): “Exactions look better or worse—in terms of equity, efficiency, or political acceptability—depending on the specific alternatives one considers most relevant analytically or most probable in reality.” However, identifying reasonable analytic and/or practical alternatives is difficult and, hence, is too commonly given little attention in impact fee studies.

Based on the assumption that fiscal rationales are commonly used by local governments to justify the adoption of exclusionary land use regulations, investigations by Gyourko (1991), Altshuler and Gómez-Ibáñez (1993), Ladd (1998), and several others have suggested that impact fees may help temper exclusionary zoning and other types of restrictive land use regulations, potentially allowing more housing to be built in suburban areas (where the preexisting level of stringency for exclusionary zoning and regulation has been repeatedly shown to be the strongest on average).¹⁵ Hence, there is no strong a priori reason to assume that the effect of impact fees on development rates must be negative. Rather, impact fees will tend to reduce (increase) construction rates only if they create a less (more) favorable set of development conditions than would be observed in their absence.

Gyourko was the first, to my knowledge, to explicitly recognize that communities using impact fees to price entry into their jurisdictions may reduce the level of exclusionary zoning (or other regulatory barriers) used in the community. He argued that impact fees may actually lead to a higher optimal level of density

Clearly, there must be an arbitrarily high level at which a given community could set impact fee levels for no developer to be willing to pay the fees. Here again, with no construction, revenues would be driven to zero. The discussion that follows outlines the factors that complicate the analysis of impact fees and challenge the typical Laffer curve assumption that there is always a direct trade-off (negative relationship) between the size of the rate and the size of the base.

15. Fiscal rationales occur when communities justify exclusion based on the idea that a certain type of development does not pay its own way (does not generate as much additional revenue for the community as it will necessitate in additional spending to accommodate the development). The empirical evidence concerning the motivations behind local governments' exclusionary policies is reviewed most recently by Ihlanfeldt (2004), who finds fiscal incentives to be an important driving factor of exclusion.

(and, in turn, a greater number of affordable units) within previously exclusive suburban areas. Most important, the Gyourko piece was the first to question analyses that view impact fees in isolation from other regulatory costs faced by developers in the permit approval process. Even so, many investigations of the effects of impact fees since then have made exactly that mistake. Altshuler and Gómez-Ibáñez (1993) echo a similar sentiment. They point out that, in practice, when local jurisdictions find themselves facing development pressures, the most realistic alternative to impact fees tends to be growth controls or other exclusionary tools meant to severely limit the number of residential building permits issued. They also discuss a number of reasons why, given the choice between the two alternatives, growth controls are likely to have the more harmful effects. Ladd (1998) also highlights the trade-off between impact fee programs and other mechanisms of limiting residential growth. In the absence of impact fees, local government officials in expanding communities face intense pressures from anti-growth contingencies, largely because those groups understand that they are being forced to pay for much of the cost of rapid infrastructure expansions through their property taxes. All three studies, as well as much of the work that has followed, conclude that the level of impact fees in a community may potentially affect the magnitude of other regulatory costs (that are generally not monetary and are often unobserved) imposed upon developers.

In their most recent Wharton Residential Land Use Regulatory Index (WRLURI), Gyourko, Saiz, and Summers (2008) provide the most interesting recent piece of empirical evidence concerning the potential relationship between impact fees and the level of other exclusionary regulations in a community. After surveying the specific regulatory practices employed in over 2,000 jurisdictions, they construct a measure of regulatory stringency for each jurisdiction that captures 11 distinct components of the factors that may influence regulatory stringency.¹⁶ Their exactions index (one of the subindexes) is somewhat limited, since the Wharton regulatory survey only registered whether a jurisdiction used impact fees, as opposed to measuring the levels and uses. Still, their data are extremely interesting. They note a great deal of consistency across the various subindexes, such that “localities which are restrictive in one aspect of the regulatory process tend not to be lenient in another” (703). Their data show that moving from lightly regulated communities, to average, and again to highly regulated communities is associated with increased values for nearly all of the various subindexes.¹⁷ Subindexes capturing local political pressure, state political involvement, local project approval, local assembly, supply restrictions, density restrictions,

16. See Gyourko, Saiz, and Summers (2008) for a detailed description of the different subindexes and a discussion of the procedures used to generate them.

17. Highly regulated communities scored in the top quartile on the overall WRLURI; lightly regulated corresponded to the bottom quartile; and the interquartile range was the average category.

open space, and approval delay all vary systematically and by significant amounts across the three categories. However, their exactions index varied little across the three categories, with the highest value coming from the average group. With their jurisdiction-level data, they also construct statewide average values for each subindex and the overall stringency measure. Recall from table 7.1 that California, Colorado, Florida, Arizona, Maryland, Oregon, and Washington were the states using impact fees most intensively. Although these seven states score positively on the WRLURI scale (indicating they are above the mean level of overall stringency), none of them fall into the top five on their index. In particular, where table 7.1 reveals that impact fees are surpassed in levels in only one state (California) and unsurpassed in breadth of coverage, Florida ranks only fifteenth on the WRLURI scale, with a score just over one-third of a standard deviation higher than the mean. Additionally, the three states with the highest percentage increase in impact fee levels leading up to the Wharton survey—Utah, Tennessee, and New Mexico—each had below average overall scores on the WRLURI, a powerful result.

Still, positive correlation does exist between impact fees and several other subindexes in the Wharton study, indicating that places with impact fees tend to also have higher than average levels of nonmonetary regulatory barriers. Most notably, they are positively correlated with the open space index and the local project approval index.¹⁸ Even though cross-sectional correlation of this nature is not a valid test for identifying whether communities use impact fees as substitutes or complements for other forms of development regulation (as common factors are expected to cause rapidly expanding communities to be more likely to implement both), it does raise interesting questions related to the ways communities select the optimal mix of monetary (impact fees) and nonmonetary requirements for allowing development of various types to occur. And while more detailed examination is likely needed before the conjecture that impact fees reduce nonmonetary barriers to development can be fully validated, I am interpreting their results as suggestive evidence that rapidly growing communities use impact fee programs as substitutes for other forms of exclusion. As such, it is possible that impact fee programs present a more favorable environment for development than what they are replacing. If so, impact fees should be thought of as a growth management tool rather than as a traditional growth control. In practice, impact fee programs reduce uncertainty and provide an easily identifiable and rigid set of rules of the game (Nelson and Moody 2003). Note how this compares to Fischel's insightful description of the way regulatory barriers affect the development process: "Local Regulation, however, is not a single-valued constraint on development decisions. It is an obstacle course in which the race director can often raise

18. I am indebted to my discussant for this chapter, Albert Saiz, who investigated the nature of correlations between the Wharton exactions index and other subindexes in a series of regressions that included state fixed effects and other control variables and shared this information.

or lower the barriers after the race has begun” (1992, 172). Simply put, it is not clear from theory alone whether impact fees will stifle or facilitate development, and empirical studies are needed to resolve the nature of the causal effect.

The empirical literature on the relationship between impact fees and housing construction is somewhat thin, consisting of studies by Skidmore and Peddle (1998), Mayer and Somerville (2000), and Burge and Ihlanfeldt (2006a, 2006b). Skidmore and Peddle’s data consist of a panel of 29 cities in DuPage County in suburban Chicago covering 1977 to 1992. By the end of this period, just over a third of these cities had implemented impact fees. Depending on model specification, Skidmore and Peddle’s results indicate that a newly imposed impact fee is associated with about a 25 to 30 percent reduction in residential development rates. This pioneering study suffers from a few important shortcomings that compromise the validity of the results. First, the impact fee variable simply registers the existence of a fee, not the dollar amount or the type of services funded by the fee. Moreover, because new homes are, on average, more expensive than existing homes, the control variables are not exogenous to the number of new homes built. Finally, the study does not fully account for the important differences in construction patterns over the very-short-run increment relative to a more reasonable length of time. It has since been shown that before impact fees are adopted, developers apply for high levels of building permits to generate as large an inventory of pre-fee permits as possible (Matthews 2002). The evidence suggests that for a few months leading up to implementation there are extremely high numbers of permits issued, followed by very low counts for a few months following implementation. By definition, any model that tracks pre- and post-adoption permit levels in a small time period will pick up this effect. It is not clear what, if any, overall effect this pre-implementation permit stockpiling will have on the longer-run level (or timing) of future completions.

Mayer and Somerville (2000) use quarterly data on 44 metropolitan areas covering 1985 to 1996 to regress the log of the number of single-family housing construction permits issued on impact fees, other land use regulatory variables, and a set of control variables. Like Skidmore and Peddle, Mayer and Somerville use a dummy variable as the measure of impact fees. However, Mayer and Somerville’s impact fee variable is measured with even greater error: for all quarterly observations coming from a particular MSA, the impact fee dummy variable equals 1 if impact fees were used somewhere within the MSA in 1989. Not surprisingly, this variable is not found to be significant.

Burge and Ihlanfeldt (2006a, 2006b) constructed a unique data set of impact fee levels among Florida counties over an 11-year period (1993–2003). In both studies, they estimated separate models for central cities, inner and outer suburban areas, and rural areas. Due to the richness of the data, they were able to employ panel data estimation techniques (including fixed effects and random trend models) that were designed to control for factors other than impact fees that may also affect construction rates. Utility and nonutility impact fees were treated separately. The results include several interesting findings. First, nonutil-

ity residential impact fees were found to increase the construction of smaller homes and multifamily housing built in Florida's inner suburban areas over this time period. This provides the first piece of empirical evidence that the positive effects of impact fees seem to outweigh the direct costs of the fees, leading to higher rates of affordable housing construction, at least within inner suburban areas where a majority of population growth in Florida occurs and where issues of housing affordability have been noted as being the most pressing. There are three significant positive effects of impact fees from the developer's point of view: (1) an increase in the likelihood of project approval and a reduction in the uncertainty over future development patterns in the community; (2) an increase in the constant quality value of homes in the community due to the fact that revenues from impact fees are pooled and used to provide valuable public infrastructure (increasing consumers' willingness to pay); and (3) fewer nonmonetary and exclusionary barriers to a developer's proposal than would be present if impact fees were not collected by the community, potentially saving both time (speeding up the approval process) and money (e.g., avoiding paying lawyers and other consultants or specialists to help navigate the approval process).

On the other hand, nonutility fees had no significant effect on construction rates for affordable housing in central city, outer suburban, or rural areas. A natural question to ask is why nonutility impact fees would increase residential construction in inner suburban areas, but not in central city or rural areas. The answer can be found by considering the three benefits to developers mentioned above and a consideration of how they should differ across different geographies. Note that exclusionary barriers have been shown repeatedly to be the strongest in suburban areas (Ihlanfeldt 2004). This means that the potential for the monetary costs of impact fees to be offset by a reduction in other regulatory costs and the potential for enhanced project approval rates are greatest in suburban areas. Regarding larger single-family homes, our results show a significant positive effect of nonutility impact fees for both inner and outer suburban areas, again, however, with an insignificant effect on construction rates in central city and rural areas. The finding that impact fees increase the construction of large homes, but not affordable housing opportunities, in outer suburban areas may be evidence that exclusion in outer suburban areas is more than just fiscally motivated. However, utility fees are found to be an insignificant determinant of construction rates for all size categories of homes and across all parts of the metropolitan area.

Turning to previous studies considering the relationship between impact fees and commercial development, the empirical literature is also scant, with studies by Nelson and Moody (2003), Jeong and Feiock (2006), and Burge and Ihlanfeldt (2009). Burge and Ihlanfeldt used a 16-year panel including variables measuring impact fees levied on commercial development as well as on residential development. They found that commercial impact fees and school impact fees have countervailing effects on employment levels in the implementing community, with the former repelling jobs and the latter attracting them. The finding that commercial impact fees stifle economic development to some extent is

easy to square with their positive effect on residential construction. The relevant counterfactual policy environment for each type of impact fee is not expected to be the same. Commercial construction, in particular retail and office construction, is highly sought after by communities, and there is no reason to believe that high levels of exclusionary barriers would be placed on developers of these properties in the absence of impact fees. This differs greatly from residential property. The estimated long-run propensities of the two types of impact fees on employment suggest that a county adopting a typical impact fee program that includes average levels of both residential and commercial impact fees will see a neutral effect on economic growth (measured by employment levels) over time.

To summarize, this section indicates that the empirical evidence contradicts the commonly held view that impact fee programs stifle construction such that local governments would face a Laffer curve trade-off between the magnitude of the rate and the magnitude of the base. Accordingly, if local governments are willing to use impact fee programs as a growth management tool, not as just another type of growth control added to other requirements (and the evidence to date seems to support that they are), the selected levels of impact fees along with knowledge of the otherwise expected rates of development in the community seem to be all a community would need to forecast future impact fee revenues.

INDIRECT EFFECTS OF IMPACT FEES ON LOCAL REVENUES

Transitioning to the indirect effects that operate through other revenue sources, the potential effect of impact fee programs on property tax revenues is the most salient. The property tax liability (*PT*) for property *i* at time *t* in community *j* is determined as

$$PT_{i,j,t} = MILL_{j,t} \times MV_{i,j,t},$$

where $MILL_{j,t}$ is the prevailing millage rate in community *j* at time *t*, and $MV_{i,j,t}$ is the market value of the property. Both variables determining property tax liabilities are expected to be affected by the presence and magnitude of impact fees. An important issue when considering the relationship between impact fees and property taxes is that market values for residential and nonresidential property may be affected differentially.¹⁹

19. Undeveloped land is another important land use category. However, it is not discussed above for two reasons. First, even if impact fees significantly affected the price of undeveloped land, they would likely have only a small effect on aggregate property tax collections due to undeveloped land's small contribution to the overall value on the roll. In Florida, for example, less than 5 percent of property taxes come from levies on vacant land (Florida Department of Revenue 2009). Second, the direction of the effect is not clear due to conflicting evidence in the literature. Yinger (1998) predicts that land prices should fall in the presence of impact fees by as much as one-quarter of the size of the impact fee itself. However, empirical investigations by

Regarding *MV* for residential property, a clear consensus has emerged from the literature that impact fees levied for expenditure categories typically financed through property tax revenues do raise housing prices.²⁰ A summary of three main findings from the literature is sufficient for the present application.²¹ First, based on nearly a dozen empirical studies using different data and identification strategies, impact fees that fund infrastructure for services otherwise financed through property tax revenues have been shown to raise the value of homes by at least the dollar amount of the impact fees themselves.²² Second, the price effects for new and existing homes have been found to be of approximately similar magnitudes (e.g., Baden and Coursey 1999; Ihlanfeldt and Shaughnessy 2004). Third, the price effects of impact fees seem to be roughly proportional to home values, such that an impact fee program that levied one dollar of impact fees uniformly on all new homes would cause the price of an expensive (large) home to increase by more than one dollar while the price of an inexpensive (smaller) home would rise by less than a dollar (Burge and Ihlanfeldt 2006a; Mathur 2007; Mathur, Waddell, and Blanco 2004).

Given the average impact fee levels discussed in the previous section, the first finding ensures that the effects on a community's aggregate residential property value will be nontrivial in magnitude. The second empirical regularity indicates that, *ceteris paribus*, we would expect *MV* to increase by similar amounts for both new and existing residential properties. Hence, the aggregate change in *MV* for residential property in the community should not be sensitive to the fraction of property in the community developed before and after the imposition of impact fees. The third result suggests that the relative impact on aggregate residential property values may not be sensitive to the composition of the housing stock. For example, if one community consisted primarily of expensive homes while another had considerable amounts of affordable housing, both communities would expect to see a similar percentage increase in the value of their residential tax base.

Nelson et al. (1992) and Skaburskis and Qadeer (1992) both conclude that impact fees have a positive effect on undeveloped land values. More work is needed before the direction of this effect is resolved.

20. It should be noted that the empirical evidence supports price effects on single-family residences. While intuition suggests that the relationship between multifamily property and the presence of impact fees should also be significant and in the same direction, to the author's knowledge empirical work has not yet validated this prediction.

21. Interested readers should see Burge, Nelson, and Matthews (2007) for a more detailed discussion.

22. Some of the papers in this literature include Nelson et al. (1992); Skaburskis and Qadeer (1992); Baden and Coursey (1999); Mathur, Waddell, and Blanco (2004); Ihlanfeldt and Shaughnessy (2004); Burge and Ihlanfeldt (2006a); Mathur (2007). For a more comprehensive review of the literature investigating the effects of impact fees on residential property values, see Burge, Nelson, and Matthews (2007).

Regarding the effects of impact fees on nonresidential property values, previous empirical work offers little direct guidance, since the vast majority of the literature on the price effects of impact fees focuses on single-family homes. Recall, however, the evidence presented above from Burge and Ihlanfeldt (2009), who found that commercial impact fees reduce development, but that residential fees have the opposite effect of job growth.²³ They argue that a reduction in the equilibrium level of employment is consistent with the idea that commercial impact fees lead to a shift to the left in the supply curve for new commercial property. This implies that, *ceteris paribus*, *MV* should increase for new commercial property, but that fewer properties will be added to the tax base over time. This creates offsetting effects on aggregate taxable value, and it is not clear, *a priori*, which effect will dominate. An interesting potential trade-off is created, and the short- and longer-run dynamics of the revenue effects may be nuanced. Suppose the positive effects on nonresidential property values take place immediately, and also that construction of new property slows for a few years, then returns to normal levels (the latter is consistent with the estimated effects from Burge and Ihlanfeldt 2009). In the short run, since price effects are immediate and effects on additions to the base take several years to play out, price effects should dominate, and property tax revenues are expected to go up. Within just a few years, though, the size of the base (the number of properties, not the total taxable value) has been permanently reduced. Thus, with higher per property values but fewer properties, the net effect on revenues is ambiguous.²⁴

Regarding the effects of residential impact fee programs on the market for commercial properties, Burge and Ihlanfeldt (2009) conclude that “School fees . . . impose no direct costs on commercial developers and also carry the possible benefits of property tax savings and/or improved levels of public service provision” (61). This explanation supports the empirical finding that residential impact fees (measured by school fees) cause higher levels of employment growth in the years following adoption and increases. The key point is that the supply curve has not shifted backward in this case due to monetary costs, and the equilibrium quantity has risen. This implies that the demand for commercial property has increased, with higher equilibrium prices accompanying the higher level of construction. Hence, in this case there is no ambiguity: because residential impact fee programs

23. They also found that water and sewer impact fee programs have no net effect on development. While one interpretation of this finding is that this category of fees creates enough of a positive shift in demand to offset the monetary costs of the fees, preserving the same level of development, they acknowledge that the result could be due to a lack of variation in water and sewer charges over time in the data.

24. Note that the discussion continues to focus on revenues. Clearly, the reduced equilibrium level of development should also imply reduced demand for public services and reductions in spending.

are likely to increase both *MV* and construction rates for nonresidential property, total taxable value increases.

To this point, the discussion has focused on the potential effects of impact fees on *MV*, but impact fees may have interesting effects on *MILL* as well. Theoretical investigations of the relationship between impact fees and millage rates have concluded that, under a balanced budget requirement, local governments will be forced to reduce millage rates when they adopt fee programs (e.g., Burge and Ihlanfeldt 2006a; Yinger 1998). This conclusion follows by definition when the balanced budget assumption is paired with the assumption that levels of service provision remain constant in the community. In practice, however, the situation is more complicated. Communities are forced to use a balanced budget only in the narrowest sense, as debt through bond issuance is a common method of infrastructure financing. Impact fees may simply alleviate the pressure to issue general obligation debt to raise funds for new infrastructure. If fewer resources are needed to service the debt and pay off the principal over time, lower future property tax revenues need not be considered a negative outcome for communities, but rather a positive one. Also, communities may choose to update their level of service provision in the presence of the impact fee program. The term *flypaper effect* is commonly used to describe the tendency of federal government grants to stick in the sense that local governments do not consume additional government services out of these transfers at rates consistent with their marginal propensity to consume from other income sources of their residents.²⁵ It is possible that impact fee programs create a similar result. Communities may simply enjoy more abundant and/or higher-quality public infrastructure levels after adopting impact fee programs. An unfortunate gap in the existing empirical literature is that no study, to my knowledge, has directly investigated whether impact fee programs generate a significant flypaper effect in regard to spending on infrastructure. One certainty is that, by definition, the payer of property tax in a community with impact fees must experience a more favorable ratio of public service levels to the millage rate, but it is not entirely clear from theory alone just how much reduction in the millage rate causes this movement.

Empirical evidence supporting the idea that millage rates will actually decline comes from Ihlanfeldt and Shaughnessy (2004). They showed that impact fees in Dade County, Florida, had a significant and negative effect on millage rates, as revealed by a three-year distributed lag model. In terms of magnitude, they found the future savings in property tax rates to be approximately equal to the size of the impact fee itself, implying that the overall effect on total revenues (impact fee revenue and property tax revenue combined) may be negligible. Their findings also suggest that the negative effect on *MILL* may not occur as quickly as the positive effect on *MV*. Again, note the interesting interplay between the short- and long-run effects. The direction of the short-run effect can easily be signed,

25. For more on the flypaper effect, see Hines and Thaler (1995) and Turnbull (1998), among others.

as any millage rate reductions will take several years to play out; thus property tax revenues should rise in the short run. However, the a priori prediction of how impact fees will influence overall property tax collections is still ambiguous in the long run, due to the opposing effects on the property tax base (positive) and property tax rate (negative), and the lack of previous work indicating which effect dominates. However, understanding the different channels by which impact fees can affect property tax revenues is likely sufficient for individual local governments, as they are likely the most knowledgeable sources of input on how impact fees will affect millage rates for their own case.

Are Impact Fee Levies Commensurate with the Costs of New Development?

A natural question regarding impact fee programs is whether local governments adopt impact fee levels that are commensurate with the costs of new development. In theory, impact fees can be used to internalize an externality being imposed on current residents by asking the new development to pay its own way. That is, impact fees are set at levels that generate enough revenue to make matters of local public finance growth neutral (budgetary pressures would be invariant to construction rates in the community). Alternatively, communities could choose to set impact fees at levels that are systematically greater or less than this amount. The former possibility could be seen as a form of rent extraction from potential entrants into the community, while the latter would represent a form of compromise—moving toward, but not fully reaching, the point of growth neutrality.

A narrow approach to this question would focus exclusively on the marginal cost of the capital infrastructure necessitated by the new development. In fact, the legality of impact fee programs in many states is linked precisely to this type of analysis, as the rational nexus test must be satisfied.²⁶ Hence, the constraint of the rational nexus test should, in theory, ensure that communities are not able to extract rents based on the monopoly power they have over unique amenities. Typically, a local government first commissions a study to investigate the relationship between development and the need for new facilities. The impact of various categories of residential and commercial development on traffic patterns, school enrollments, and other local public services is estimated. This issue is addressed in a 1986 report, *Impact Fees in Florida* (Advisory Council on Intergovernmental Relations). The study cites two estimates of the average marginal cost of infrastructure necessitated by a new single-family residence in Florida (\$10,865 from a 1973 study by Downing and Gustely [1977], and \$22,000 from a 1985 study by James

26. The rational nexus test requires (1) a clear connection between new growth and the need for new capital infrastructure; (2) the imposition of fees that are proportional to the actual costs of providing the infrastructure; and (3) that the payer of the fee clearly benefit from the new public facilities.

Frank) and points out that these amounts do not come close to observed impact fee levels.²⁷ Bringing both figures forward to current dollars and comparing them to the impact fee levels reported in table 7.4 reveals that the same is still true today. Also note that fees in Florida are higher than anywhere else in the United States save California. Therefore, it is reasonable to conclude that most impact fees in the United States are not being set at levels that attempt to extract rents from developers through priced entry into the community. Instead, it seems that most levies are actually much smaller than the full marginal cost of new infrastructure needs.

A more comprehensive way to approach the question is to investigate the long-run total fiscal impact the development will have on the community. This captures effects on immediate capital spending needs as well as future effects on revenue and expenditure streams for ongoing services. In his 1997 investigation of infrastructure financing and impact fees, Brueckner notes that the per capita costs of both ongoing operational and infrastructure expansion costs should be a U-shaped function with respect to population. Hence, development may bring additional positive or negative fiscal effects—beyond the short-run impact on the cost of adding infrastructure capacity—that will tend to vary systematically with the type of development.²⁸

Of course, this has long been understood, and a vast literature considering fiscal impact analysis has developed over many decades.²⁹ Altshuler and Gómez-Ibáñez (1993) consider the question “Does development pay its own way?” They discuss how most early “cost/revenue analyses” during the 1940s and 1950s concluded that, while affordable housing (including apartments) probably created a net burden on the community, most other types of development did not. However, a turning point seemed to occur during the 1980s when fiscal impact analyses began to commonly reserve the label of “profitable” residential development

27. An important point is that infrastructure costs are expected to vary geographically both among and within states. While the costs of physical capital and many raw materials are expected to be relatively comparable across geographies, the cost of labor is expected to vary considerably. However, Florida is near nationwide averages for wages in the employment sectors expected to most heavily influence labor costs (e.g., construction and extraction, installation and maintenance/repair, transportation). As such, the costs in Florida are likely a reasonable reference point in this context.

28. In practice, this is likely one of two important reasons why it is rare to see a truly small, rural community adopt an impact fee program, even if its population growth rate is very high. Because costs per household are at a very high point on the cost of public services per capita curve, they are driven down as the community expands in size. Another potential reason impact fee programs are so rare in rural areas is that there are likely fixed costs associated with the development and administration of impact fee programs. So while population growth rates may be very high in some rural communities, the level of construction is still small when compared to larger communities.

29. Robert Burchell and David Listokin, through methodologies developed in a series of publications over the late 1970s through the 1980s, are most directly responsible for advancing the practice of fiscal impact analyses to what it is today.

for what has since become pejoratively known as “McMansion” style developments. Of course, the classic confrontation between efficiency- and equity-related concerns surfaces at this point in the discussion. Impact fee programs designed with the goal of making every potential development fiscally neutral, such that existing community residents were neither harmed nor aided by the approval of the new development, would unfortunately require huge levies on apartments and smaller homes, with essentially nonexistent fees (or perhaps even rebates) for the largest homes. Fortunately, this is not at all the pattern observed in the data. While table 7.4 reports only the fee levels for a standard moderately sized home, a deeper investigation reveals that communities generally use one of two approaches: (1) they apply uniform fees to all single-family homes regardless of size; or (2) they have a sliding scale that responds to either interior square footage or the number of bedrooms in the home.³⁰ As such, there is no evidence that communities adopt impact fee schedules that reflect truly development neutral pricing for each individual home.

But McMansions are not the only type of desired development; the 800-pound gorilla in the room is that local governments frequently compete over retail, office space, and certain types of industrial developments. In their 2000 book, *Bidding for Business*, Anderson and Wassmer review the various instruments used by local governments to woo desirable commercial development. These include, but are not limited to, practices such as tax forgiveness, TIFs, industrial development bonds, municipal land acquisitions, and enterprise zones. Clearly, then, commercial impact fee levels are not set anywhere near values that would create fiscally neutral development, since this would require subsidization. On the other hand, being subject to the rational nexus test, communities are likely set at or below the actual marginal cost of the infrastructure expansion projects necessitated by their presence. In fact, impact fee programs are a clever fiscal tool from the point of view of local governments. Consider the following aspects of fee programs in regard to commercial development:

- Fee programs are highly visible and easy to understand. They create a tangible focal point that can be used to appease any antigrowth contingencies that have political power in the community.
- Fee programs generate up-front revenue to be used for capital infrastructure that is likely to be highly valued by both developers and local

30. Because local governments increasingly are concerned with issues of affordable housing within their borders, many experts in the area of impact fee program design favor the latter approach. In addition to equity-motivated concerns pushing for graduated fee schedules, there is clear evidence that larger homes tend to house larger households (up to a point, at least), such that a sliding scale more accurately reflects the true impact of the development on infrastructure costs. See Burge and Ihlanfeldt (2006a, 2006b) for more-detailed data relating to how impact fee levies vary across homes of different sizes as well as between single-family and multifamily housing units.

government officials. From the developers' point of view, impact fees reduce the risk that they will locate in a particular area based on expectations or promises, but then be hung out to dry by a lack of adequate public infrastructure servicing their location (Nelson and Moody 2003). From the local government's point of view, it is no longer forced to choose between asking for higher immediate taxes, issuing higher levels of general obligation debt, or suffering from inferior levels of public services.

- Fee programs do not inhibit the local government's ability to offer other meaningful fiscal incentives for desirable commercial development. In fact, a savvy local government wishing to attract profitable commercial development but facing opposition from antigrowth contingencies in the community would do well to shout from a mountaintop about its impact fee program and to quietly enact policies meant to subsidize retail, office, and desirable industries locating in the community.

To summarize, the data suggest that local governments have not implemented impact fee charges that exceed the full marginal costs of capital infrastructure necessitated by growth. If anything, there is evidence that the vast majority of communities enact fees that are actually far less than this amount. Impact fee programs in most parts of the country are best viewed as a compromise between the no impact fee environment and new development actually paying its own way. The important differences between a short-run analysis focusing entirely on capital costs and the more comprehensive approach of performing a fiscal impact analysis for each type of property have been highlighted. It is clearly the case that communities are not setting impact fee levels at rates consistent with long-run fiscal neutrality for all types of development. To reiterate, this is a desirable outcome based on equity concerns.

Conclusions: Impact Fee Usage in the Future —————

For better or for worse, revenues from impact fee programs have exploded over the last two decades in many parts of the United States. In discussing the relationship between impact fee programs and local fiscal conditions, this chapter has highlighted the role of both direct and indirect revenue effects. Direct effects were most notably dependent on the size of the impact fee levies and the effect those fees had on future development rates. The literature concerning the relationship between impact fees and rates of new construction was therefore reviewed. A common theme in this literature is that impact fees may act to reduce other exclusionary barriers to development and, for that reason, may not be strictly subject to the classic Laffer curve trade-off between the rate and the base. The indirect effects of impact fees on local revenues were argued to primarily operate through the property tax, since they have been shown to affect both property value and future millage rates within adopting communities. Because impact fees have opposing effects on property values (positive) and future millage rates (negative), it

is entirely possible that the net effect on property tax revenues is negligible. The question of whether impact fees are set at levels commensurate with the costs of new development has also been addressed, the conclusion being that the vast majority of communities have selected fee levels at or below the commensurate cost benchmark. The analysis has stressed the importance of understanding how different types of impact fees (utility and nonutility) have substantively different effects on local revenues and, in turn, on local fiscal conditions. At the same time, impact fees may have differential effects on future development rates for commercial and residential property and, even more specifically, within different types of residential construction.

More generally, the socially relevant question that must be addressed is whether impact fee programs are desirable compared with what we would expect to observe in their absence. A greater reliance on property tax revenue along with increased need for general obligation debt financing is commonly seen as the alternative to paying for at least a portion of the costs of new infrastructure with impact fee revenues. My discussion referenced several scholars who are to be credited with the original idea that impact fees may reduce the presence and/or stringency of other regulatory barriers to development. Detailed evidence from a recent national survey of local land use regulation practices was referenced to support that claim. However, much more can and should be done in this area, as this important question remains difficult to answer with certainty. Still, I trust I have conveyed my personal belief that the empirical literature has provided at least some suggestive evidence that communities adopting impact fee programs are using them as growth management tools (substitutes for other forms of exclusionary barriers) rather than as just another barrier added into the mix. If that is true (if communities actually substitute monetary exactions for nonmonetary growth controls such as large lot or open space zoning, permit caps, or simply denying the applications of developers), then I would argue that impact fees should be viewed as the preferable alternative.

Recall the previous claim that impact fees can be thought of as an attempt to more closely link the revenue and expenditure sides of the equation. In practice, impact fee programs have clearly been operationalized with this goal in mind. When used wisely, they facilitate the provision of valuable infrastructure projects concurrent with residential and commercial growth. While still relatively small in terms of their overall contribution to local government revenues, they are becoming an increasingly important revenue source in many parts of the United States and have staked their claim as an important part of the changing landscape of local public revenues.

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