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The Effects of Development Impact Fees on Local Fiscal Conditions

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Abstract: Over the past several decades, local governments have become increasingly concerned with financing the significant costs of growth. Many communities have adopted development impact fee programs in efforts to better provide valuable infrastructure concurrent with new development. However, the full impact of residential and commercial impact fee programs on local government revenues and the extent to which benefits are commensurate with the costs that new development impose on communities is not well understood. In part, this is because fee programs likely generate effects on revenue streams that extend beyond impact fee collections. This paper develops a simple framework to examine how impact fee programs are likely to affect local fiscal conditions and provides a critical synthesis of various literatures related to this issue. Using recent data from a nationwide survey as well as an extensive panel data set on impact fee levels in Florida, it also provides timely evidence concerning the composition of modern impact fee programs and their potential effects on matters of local public finance.

Introduction

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/sewer, and many others) that are needed to accommodate growth. Recent estimates suggest that nearly one thousand local governments across the US use impact fees to raise revenues to help pay for valuable infrastructure to be provided concurrently with new development (Nelson et al., 2008). While 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 2005-06, and have increased more than *ten-fold* over the past two decades. While impact fees are likely to continue to be most prevalent in the Southern and Western portions of the US, 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 Gomez-Ibáñez's (1993) pioneering work, *Regulation for Revenue*. While 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 (1993) recommended that “Whenever possible, local public services should be charged for.” I agree. But consumption of many local public services, and the costs incurred in their provision, is 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 up front 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,

¹ Although “impact fee” and “development fee” are the two most common labels for this fiscal instrument, terms such as “capacity fees”, “facility fees”, “capital recovery fees”, “system development charges”, “expansion fees”, and “mitigation fees” are all commonly used by communities. The term “exactions” 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.

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 up front 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 in time and likely moved into communities

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 relating to efficiency and equity implications of impact fee programs.⁵ Perhaps the most common fear has been that impact fee programs may have adverse effects on the availability and affordability of housing – in particular on 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 will accordingly review its main conclusions in later sections.

The main questions I presently address are as follows. First, what are the full impacts of impact fee programs on local revenues? While 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. Additionally, I consider whether or not the best and most recent data on impact fees across the US suggests 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 (i.e., 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 not have uniform effects on local revenues. At times I also draw a distinction between impact fees that cover costs related to water and sewer infrastructure (heretofore utility impact fees) and those earmarked for spending on roads, schools, parks, libraries, police, fire, and so on (heretofore non-utility impact fees). Several important distinctions, including the point of collection and control over spending, differ between these two types of impact fee programs.⁶

The discussion in the following section considers these related questions. Evidence from recent nationwide impact fee surveys as well as privately compiled historical impact fee panel data from Florida is used to document the trends that have

that did not ask them to “pay their own way”. The distributional impacts of impact fee programs across generations and/or across groups more (less) likely to move into newer (older) communities is beyond the scope of this investigation but remains an interesting topic for future research.

³ Those interested in the factors that influence the likelihood of adoption of impact fee programs 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 any other forms of taxation placed on property owners in the community) serve as the variable price.

⁵ See the websites 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 taken against impact fee use.

⁶ Utility fees are nearly always collected by the utility company itself (even if a community has this service privately contracted out) while all other categories are typically collected by local planning or building permitting departments. For a more detailed discussion of the various conceptual differences between utility and non-utility impact fee programs see Burge and Ihlanfeldt (2006a).

played out in the actual implementation of impact fee programs over the last three decades. In doing so, 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 are also expected to have somewhat nuanced indirect effects on other sources of local revenue. The sections that follow discuss the direct and indirect effects of impact fee programs on local revenues. The discussion then considers whether or not impact fee programs that have been implemented to date impose levies that are commensurate with the actual costs of new development being imposed on the community (as opposed to more or less than this amount). Before moving on though, it is worth pointing out that impact fee revenues are earmarked and must be spent on the actual infrastructure category to which they were designated for in ways that pass a “rational nexus” test (Nicholas and Nelson, 1988). That is to say, under reasonable legal standards, it must be shown 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 is 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 US. The data come from Duncan and Associates who annually compile a survey of local governments. The 2003 and 2008 surveys are used presently.⁷

Table 1 (insert Table 1 about here) provides several details of the current impact fee landscape in the US. While column 3 shows that municipal governments are the primary level of implementation in most states, Florida and Maryland are notable exceptions. Additionally, several states have environments where 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 zoning will probably be the source of impact fee policies. California easily has the highest impact fee levels.⁸ Looking at non-utility fees in column 5, Washington, Florida, and Maryland (in that

⁷ The data from these surveys does not reflect exhaustive coverage of jurisdictions using fees nor is the data generated using a random sampling process. The survey is, by construction, biased towards 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, it is still the most detailed *nationwide* data set available. See www.impactfees.com for more details.

⁸ The discussion in the text purposely omits Virginia and West Virginia. The large average prevailing in both states is clearly driven by a single jurisdiction in each case, while overall impact fee usage is sparse.

order) follow California in terms of having the highest charges. Column 2 suggests that Florida, California, and Arizona are the three states where 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 while 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 other states that have at least moderate impact fee use are documented in Table 2. (Table 2 about here) 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 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 US 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 others. The discussion now turns to a more detailed investigation of the nature of impact fee programs in Florida.

Florida is an ideal choice for a more detailed exposition since 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 are 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. The data described below come from a primary data collection effort undertaken by the author for the completion of a dissertation and several subsequent research papers over the past few years.

Tables 3 (Table 3 about here) presents detailed information on impact fee revenues in Florida Counties for fiscal year 2005-2006.⁹ In total, just shy of \$2 billion in impact fee revenues were collected in Florida during this year. This accounts for roughly 3.5% of total own source revenues for local governments and is just over 8.2% of the amount of total ad valorem property taxes collected in Florida during the same year. The real story with impact fee revenues however, is not their levels, but their trends over the past two decades. Total impact fee revenues for fiscal year 2005-2006 were 4.5 times greater than revenues from 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 ten-fold 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 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

⁹ This is the most recent year available on the website for the Florida Legislative Council on Intergovernmental Relations (LCIR), the office that facilitates the dissemination of this data. 48 of Florida's 67 counties are included in Tables 3 and 4. To be included, at least one entry into the impact fee levies shown on Table 4 needed to be non-zero.

(rather than the local governmental planning unit). Another important point is that the statewide averages mask how incredibly important impact fee revenues are within particular areas. Column 4 shows the huge variation in the relative contribution of impact fee programs to local public revenues across the state. 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 taxes revenues (also for fiscal year 2005-2006) was just under \$1,250. Simply put, for a handful of areas in Florida, impact fee revenues have become an important contributor to own source revenues.

Table 4 (Table 4 about here) presents detailed information about the nature of impact fee programs in Florida over the past two decades. Note that a majority of counties adopted their programs during the late 1980s.¹⁰ Columns 5-13 show per unit fee levels (for a standardized home) in 1990, 2000, and 2006, for three different categories of impact fees – utility, non-utility for a residential home, and non-utility 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 non-utility impact fees, only three (Dade, Monroe, and Palm Beach) had higher charges per home for the latter rather than the former. By 2006 it is easy to see how this relationship had reversed: non-utility fees began to exceed utility charges for the vast majority of counties where they were both present. In fact, the most notable characteristic of utility fees is their stability over this time period. While Table 4 shows all nominal values for ease of interpretation, real utility fee levels are lower in many counties for 2006 than they were in 1990. The explosion in non-utility 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 non-utility fees is quite different.¹¹ The distinction requires identifying the counterfactual in each case – what would occur in the community in the absence of each type of impact fee?

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 their expenditures and make a normal rate of profit on their 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 or not impact fee programs are used to gather the revenues needed to add capacity to the water/sewer system or whether the utility company is allowed to recoup the costs through higher regulated prices, *local public*

¹⁰ See Burge and Ihlanfeldt (2007) for a detailed explanation of the causes of this rapid explosion. A series of three important court cases occurring over the late 1970s and early 1980s clearly established their legality in Florida and likely acted as a catalyst.

¹¹ See Burge and Ihlanfeldt (2006a, 2006b) for more detailed discussions of the important differences between utility (water and sewer) and non-utility (all other categories) fees.

revenues are not affected in either case. 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 non-utility impact fees is much more nuanced and is considered below.

Importantly, Table 4 reveals the simple story behind the huge variation in per capita impact fee revenues and identifies the same trend in Florida as was the case 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 respectively show how each had well established programs adopted during the 1980s, and that 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 Fee on Construction Rates – Identifying the Counterfactual

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. - Alan Altshuler & José Gomez-Ibáñez, 1993

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.¹² However, the empirical trends outlined above suggest that states 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 obviously important likelihood of reverse causality – places with high previous growth rates or forecasts of rapid future growth are precisely the likely candidates for adopting impact fee programs or raising their current rates. The more relevant question is how impact fee levels impact residential and commercial development *relative to development patterns that would tend to be observed in their absence.* And therein lies perhaps the most fascinating aspect of work analyzing impact

¹² In the extreme, the Laffer curve principle must apply to impact fee revenues just as they do to any revenue raising mechanism. An absence of fees, by construction, implies no revenues. And clearly, there must be an arbitrarily high level that a given community could set impact fee levels at, for which no developer would be willing to pay the fees. Here again, with no construction, revenues would again be driven to zero. The discussion that follows outlines the factors that complicate the analysis of impact fees and challenges the typical Laffer curve assumption that there is always a direct tradeoff (i.e., negative relationship) between the size of the rate and the size of the base.

fees: to be accurate and insightful, research must stay mindful of the simple question outlined by Altshuler and Gomez-Ibáñez. However, identifying reasonable analytic and/or practical alternatives and using these in formulating conclusions 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, Gyourko (1991), Altshuler and Gomez-Ibáñez (1993), Ladd (1998), and several more recent investigations, 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 within suburban areas (where the preexisting level of stringency with regard for exclusionary zoning/regulation has been repeatedly shown to be the strongest on average).¹³ Hence, there is no strong *a priori* reason to assume 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 what 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 argues that impact fees may actually lead to a higher optimal level of density (and in turn, a greater number of affordable units) within previously exclusive suburban areas. Most importantly, 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 that time have made exactly that mistake. Altshuler and Gomez-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 of the two. Ladd (1998) also highlights the tradeoff 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 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 directly affect the magnitude of other regulatory costs (that are generally not monetary and 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 over 2000

¹³ “Fiscal rationales” occur when communities justify exclusion based on the idea that a certain type of development does not “pay its own way” (i.e., 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.

jurisdictions concerning the specific regulatory practices employed, they construct a measure of regulatory stringency for each jurisdiction that captures eleven distinct components of the factors that may influence regulatory stringency.¹⁴ Impact fees (their Exactions Index) is one of the eleven sub-indexes. While the Wharton Regulatory survey only registered whether or not a jurisdiction used impact fees, as opposed to measuring their levels and uses, their data is still extremely interesting. They note a great deal of consistency across the various sub-indexes, such that “localities which are restrictive in one aspect of the regulatory process tend not to be lenient in another” (pg. 703). Their data shows 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 sub-indexes.¹⁵ Sub-indexes capturing local political pressure, state political involvement, local project approval index, local assembly index, supply restrictions index, density restrictions index, open space index, and approval delay index, 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 actually coming from the “average” group. Recall that California, Colorado, Florida, Arizona, Maryland, Oregon, and Washington were the states using impact fees most intensively. Although each of these states does score positively on the WRLURI scale (indicating they are above the mean level of overall stringency) none of these seven states falls into the top five on their index. In particular, Florida, where impact fees are only surpassed in levels in one state (California), and unsurpassed in breadth of coverage, ranks only 15th 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 sub-indexes in the Wharton study, indicating places with impact fees tend to also have higher than average levels of non-monetary regulatory barriers. Most notably, they are positively correlated with the open-space index and the local project approval index.¹⁶ Even though cross-sectional correlation of this nature is not a valid test for identifying whether or not communities use impact fees as substitutes or compliments for other forms of development regulation, it does raise interesting questions related to the ways communities select the optimal mix of monetary (impact fees) and non-monetary requirements for allowing development of various types to occur. And while more detailed examination is likely needed before the conjecture that impact fees reduce non-monetary 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 entirely 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

¹⁴ See Gyourko, Saiz, and Summers (2008) for a detailed description of the different sub-indexes and a discussion of the procedures used to generate them.

¹⁵ “Highly” regulated communities scored in the top quartile on the overall WRLUPI index, “lightly” regulated corresponded to the bottom quartile, and the interquartile range was the “average” category.

¹⁶ I am indebted to my discussant for the paper, Albert Saiz, who investigated the nature of correlations between the Wharton Exactions Index and other sub-indexes in a series of regressions that included state fixed effects and other control variables and shared this information.

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 an insightful description of how regulatory barriers affect the development process made by Fischel (1992): “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 or lower the barriers after the race has begun.” 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 are a panel of 29 cities contained within Dupage County, a suburb of Chicago, covering the years 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. Although pioneering, their study suffers from a few important shortcomings which compromise the validity of their results. First, their impact fee variable simply registers the existence of a fee and not the dollar amount of fees nor the type of services funded by the fee. Moreover, because new homes are, on average, more expensive than existing homes, their control variables are not exogenous to the number of new homes built. Finally, they did 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 in advance of impact fees being adopted, developers apply for high levels of building permits to generate as large an inventory as they can of pre-fee permits. (Matthews, 2002) The evidence suggest that for a small number of months leading up to implementation there were extremely high numbers of permits issued, followed by very low counts for a small number of 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 use quarterly data on 44 metropolitan areas covering the years 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 one 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 (1993-2003) period. In both studies, we estimated separate models for central cities, inner and outer suburban areas, and rural areas. Due to the richness of our data, we 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 non-utility impact fees are treated separately. Our results include several interesting

findings. First, non-utility residential impact fees were found to increase the construction of smaller homes and multi-family housing built within Florida's inner suburban areas over this time period. This provides the first piece of empirical evidence that, 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, the positive effects of impact fees seem to outweigh the direct cost of the fee, leading to higher rates of affordable housing construction. On the other hand, non-utility fees had no significant effect on construction rates for affordable housing in central city, outer suburban or rural areas. Regarding larger single family homes, our results show a significant positive effect of non-water/sewer 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. On the other hand, 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 the 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). To summarize, Burge and Ihlanfeldt used a sixteen year panel including variables measuring impact fees levied on commercial development as well as on residential development. We find 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 result that commercial impact fees stifle economic development to some extent is easy to square with their positive effect on residential construction. Regarding the quote that began this section – *the alternative in each case is not expected to be the same*. Commercial construction, and in particular retail and office construction, is highly sought after by communities and there is no reason to believe high levels of exclusionary barriers would be placed on developers of these properties in the absence of impact fees. This differs greatly from the story outlined above concerning residential (and affordable 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 feel a neutral effect on economic growth (measured by employment levels) over time.

To summarize, this section indicates that contrary to the commonly held view that impact fee programs will stifle construction, such that local governments would face a Laffer curve tradeoff between the magnitude of the rate and the magnitude of the base, the empirical evidence suggests this is not the case. Accordingly, if local governments are willing to use impact fee programs as a growth management tool and not as just another type of growth control being thrown onto a pile of other requirements (which the evidence to date seems to support), 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.¹⁷ The property tax liability for property i at time t in community j , is determined as:

$$(1) \quad PT_{i,j,t} = MILL_{j,t} \cdot MV_{i,j,t}$$

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 in a community. An important issue when considering the relationship between impact fees and property taxes is that the market values for residential and nonresidential property may be affected differentially.¹⁸

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.¹⁹ A summary of three main findings from the literature is sufficient for the present application.²⁰ 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 fee itself. Second, the price effects for new and existing homes have been found to be of approximately similar magnitudes (e.g., Ihlanfeldt and Shaughnessy, 2004; Baden and Coursey, 1999). 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 expensive (large) homes to increase by more than one dollar while the price of inexpensive (smaller) homes would rise by less than the dollar (Mathur, Waddell and Blanco, 2004; Burge and Ihlanfeldt, 2006; Mathur, 2007).

¹⁷ 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 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 could easily be affected over time. Additionally, if states allocate aid to localities based upon 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 impact on intergovernmental transfers.

¹⁸ Undeveloped land is another important land use category. However, it is not discussed above for two reasons. First, even if impact fees significantly impacted the price of undeveloped land, it 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 role. In Florida for example, less than 5% 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 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 Nelson et al. (1992) and Skaburskis and Qadeer (1992) both conclude impact fees actually have a positive effect on undeveloped land values. More work is needed before the direction of this effect is resolved.

¹⁹ It should be noted that the empirical evidence supports price effects on single family residences. While intuition suggests the relationship between multifamily property and the presence of impact fees should also be significant and of the same direction, to the author's knowledge, empirical work has not yet validated this prediction.

²⁰ Interested readers should see Burge, Nelson, and Matthews (2007) for a more detailed discussion.

Given the average impact fee levels discussed in the previous section, the first finding ensures the effects on a communities' 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 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.

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). They find that commercial impact fees reduce development but that residential fees have the opposite effect of job growth.²¹ The commercial fees result is consistent with a reduction in the supply curve. 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 tradeoff is created and the short and longer run dynamics of the revenue effects may be quite 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 (in this context referring to the number of properties, not total taxable value) has been permanently reduced. Thus, with higher per property values but fewer properties - the net effect on revenues is ambiguous.²²

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." 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/increases. The key point is that the supply curve has not shifted backwards in this case due to monetary costs, and the equilibrium quantity has risen. This implies the demand for commercial property has increased, with higher equilibrium prices accompanying the higher level of construction. Hence, for this case there is no ambiguity since residential

²¹ They also find that water/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 these fees, preserving the same level of development, they acknowledge the result could be due to a lack of variation in water/sewer charges over time within their data.

²² 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.

impact fee programs 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 they 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., Yinger, 1998; Burge and Ihlanfeldt, 2006). 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, this is a more complicated situation. Communities are only forced to use a balanced budget 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 principle over time, lower future revenues need not be considered a negative outcome for communities – but a positive one. Also, communities may choose to update their level of service provision in the presence of the impact fee program. The “flypaper effect” is a term commonly used to describe the phenomenon that federal government grants tend 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.²³ 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 or not impact fee programs generate a significant flypaper effect in regards to spending on infrastructure. One certainty is that, by definition, the property tax payer 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 a 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 show that in Dade County, FL, impact fees had a significant and negative effect on millage rates, as revealed by a three year distributed lag model. In terms of magnitude, they find the future savings in property tax rates is approximately equal to the size of the impact fee itself – implying the overall effect on total revenues (i.e., impact fee revenue and property tax revenue combined) may be negligible. Their findings also suggest 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, 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

²³ Readers more interested in the literature on the flypaper effect should see Hines and Thaler (1995) and Turnbull (1998) among others.

tax revenues is likely sufficient for individual local government - 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 or not 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 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* (i.e., budgetary pressures would be invariant to construction rates in the community). Alternatively, communities could choose to set impact fees at levels that were 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 towards, 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. And, 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.²⁴ 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 that various categories of residential and commercial development have on traffic patterns, school enrollments, and other local public services is estimated. In addition, this issue is addressed in a 1986 report, *Impact Fees in Florida*. 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 and \$22,000 from a 1985 study by Frank) and points out that these amounts do not come close to observed impact fee levels. Bringing both figures forward to current dollars and comparing them to the impact fee levels reported in Table 4 reveals the same is still true today. Also note that fees in Florida *are larger than anywhere else in the US, save California*. Therefore, it is reasonable to conclude that impact fees in the US are not being set at levels that attempt to extract rents from developers through “priced entry” into the community. Instead, under this approach it seems that levies are actually much less than the full marginal cost of new infrastructure needs.

A more comprehensive way to approach the question, however, 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 any future effects on revenue and expenditures 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

²⁴ 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.

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.²⁵

Of course, this has long been understood and a vast literature considering fiscal impact analysis has developed over many decades.²⁶ Altshuler and Gomez-Ibañez (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 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 fees 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 non-existent fees (or perhaps even rebates) for the largest homes. Fortunately, this is not at all the pattern observed in the data. While Table 4 reports only the fee levels for a standard moderate 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.²⁷ 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

²⁵ 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 the population growth rate is very high in the community. Because they are at a point on the cost of public services per capita curve that is very high, costs per household 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.

²⁶ Robert Burchell and David Listokin, through methodologies developed in a series of several 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.

²⁷ 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 or different sizes as well as between single family and multifamily housing units.

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 regards to commercial development:

1. They are highly visible and easy to understand. They create a tangible focal point that can be used to appease any “anti-growth” contingencies that have political power in the community.
2. They generate up-front revenue to be used for capital infrastructure that is likely to be highly valued by both developers and local government officials. From the developers point of view, impact fees reduce the risk that they will locate in a particular area based upon expectations/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, they are 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.
3. They do not inhibit the local government’s ability to offer desirable commercial development *other meaningful fiscal incentives*. In fact, a savvy local government wishing to attract profitable commercial development but facing opposition from “anti-growth” contingencies in their community would do well to shout about their impact fee program from a mountaintop and enact policies meant to subsidize retail, office, and desirable industries locating in the community by the stealth of night.

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 has 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 US. In discussing the relationship between impact fee programs and local fiscal conditions, this article has highlighted the role of both direct and indirect revenue effects. Direct effects were most notably dependant upon 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 tradeoff 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 or not 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 non-utility) have substantively different impacts 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 vs. residential property and even more specifically, within different types of residential construction.

More generally, the socially relevant question is whether or not 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 most commonly seen as the alternative to paying for at least a portion of the costs of new infrastructure with impact fee revenues. The 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. In the process, I trust I have conveyed my personal belief that impact fee programs should be viewed as the preferable alternative if the choices are between monetary exactions and non-monetary growth controls (i.e., large lot or open space zoning, permit caps, or simply denying the applications of developers wishing to build affordable housing). One admittedly crude description of the differences between impact fee programs and non-monetary growth controls is that the former leads directly to something we *know* is valued by community residents (capital infrastructure), while the latter frequently leads to outcomes we *hope* are valued by community residents (i.e., open space, big yards, fewer apartments, less traffic, rural lands preserved near the urban fringe) but may, unfortunately, be at least in part, pure restrictions to the supply of development in the market.

Recall the previous claim that impact fees can be thought of as an attempt to more closely link the revenue and expenditure side of the equation. In practice, impact fee programs have clearly been operationalized with this goal in mind. Conditional on communities continuing to adopt impact fee programs that do not unfairly burden low income housing (or residential development in general) and the continued observation that regions with high levels of impact fees exhibit relatively low levels of other exclusionary tendencies, there is solid justification for the claim that impact fee programs are both efficient and equitable relative to their most reasonable alternatives.

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Table 1: Nationwide Impact Fee Usage^a

State	Sample	Implementation Level ^b	Total	Non-Util	Road	Utility	Park	Library	Fire	Police	School
AR	4	Municipal	\$1,816	\$819	✓	✓	✓	-	✓	✓	-
AZ	31	Municipal	\$10,436	\$5,874	✓	✓	✓	✓	✓	✓	-
CA	38	Municipal	\$27,982	\$19,506	✓	✓	✓	✓	✓	✓	✓
CO	17	Both	\$9,843	\$5,697	✓	✓	✓	✓	✓	✓	✓
DE	1	County	\$9,321	\$1,157	-	✓	✓	✓	✓	✓	-
FL	68	County	\$10,508	\$9,320	✓	✓	✓	✓	✓	✓	✓
GA	6	Both	\$1,969	\$1,969	✓	-	✓	✓	✓	✓	-
HI	1	Municipal	\$1,836	\$1,836	✓	-	-	-	-	-	-
ID	2	Municipal	\$7,693	\$4,001	✓	✓	✓	-	✓	✓	-
IL	4	Both	\$4,422	\$2,597	✓	✓	✓	✓	✓	✓	✓
IN	2	Municipal	\$4,100	\$2,900	✓	✓	✓	-	-	-	-
KS	3	Municipal	\$4,765	\$3,050	✓	✓	✓	-	-	-	-
LA	2	Municipal	\$2,980	\$1,905	✓	✓	-	-	-	-	-
MD	10	County	\$11,137	\$8,798	✓	✓	✓	✓	✓	✓	✓
MO	2	Municipal	\$861	\$861	✓	-	-	-	-	-	-
MT	1	Municipal	\$7,160	\$2,094	✓	✓	-	-	✓	-	-
NC	5	Both	\$6,635	\$2,718	✓	✓	✓	-	-	-	✓
NE	1	Municipal	\$4,685	\$2,800	✓	✓	✓	-	-	-	-
NH	4	Municipal	\$4,111	\$4,111	✓	-	✓	-	✓	-	✓
NM	8	Municipal	\$7,544	\$4,879	✓	✓	✓	-	✓	✓	-
NV	5	Municipal	\$3,623	\$2,828	✓	✓	✓	-	-	-	✓
OH	3	Municipal	\$6,585	\$2,907	✓	✓	✓	-	✓	✓	-
OK	1	Municipal	\$1,347	\$647	✓	✓	-	-	-	-	-
OR	11	Municipal	\$12,020	\$6,929	✓	✓	✓	-	-	-	-
PA	1	Municipal	\$2,220	\$2,220	✓	✓	✓	-	-	-	-
SC	3	Both	\$5,775	\$1,795	✓	✓	✓	✓	✓	✓	-
TN	6	Municipal	\$5,030	\$4,092	✓	✓	✓	-	✓	✓	✓
TX	8	Municipal	\$3,311	\$1,520	✓	✓	✓	-	-	-	-
UT	8	Municipal	\$6,981	\$4,702	✓	✓	✓	-	✓	✓	-
VA	2	Both	\$28,355	\$38,151	✓	✓	✓	✓	✓	-	✓
VT	2	Municipal	\$8,432	\$8,432	✓	-	✓	✓	✓	✓	✓
WA	15	Both	\$9,563	\$6,436	✓	✓	✓	-	✓	✓	✓
WV	1	County	\$12,943	\$12,943	-	-	✓	-	✓	✓	✓
WI	4	Municipal	\$4,518	\$2,887	✓	✓	✓	✓	✓	✓	-

^a Source is Duncan and Associates Annual Impact Fee Survey, 2008 edition. All fee amounts refer to a standardized 2,000 square foot, 3 bedroom home, on a 10,000 square foot lot.

^b Implementation level does not refer to whether or not legislative authority has been given to municipal and/or county governments by the state, but by the actual observations in the Duncan Associates Survey. If 25% of the states 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 - their impact fee levels are either perfectly or nearly perfectly replicated by each of the 4 cities in Brevard County that are included in the survey results.

Table 2: Recent Trends in States with Intensive Impact Fee Usage^a

State	Non-utility fees ^b 2003	Non-utility fees ^b 2008	\$ change	% change	Population Growth 2000-2008 ^c
AZ	\$2,862	\$5,874	\$3,012	105.2	26.7%
CA	\$11,389	\$19,506	\$8,117	71.3	8.5%
CO	\$4,982	\$5,697	\$715	14.4	14.8%
FL	\$4,243	\$9,320	\$5,077	119.7	14.7%
GA	\$1,541	\$1,969	\$428	27.8	18.3%
MD	\$5,143	\$8,798	\$3,655	71.1	6.4%
NC	\$2,897	\$2,718	-\$179	-6.2	14.6%
NH	\$3,526	\$4,111	\$585	16.6	6.5%
NM	\$2,034	\$4,879	\$2,845	139.9	9.1%
NV	\$1,592	\$2,828	\$1,236	77.6	30.1%
OR	\$5,334	\$6,929	\$1,595	29.9	10.8%
TN	\$1,624	\$4,092	\$2,468	152.0	9.2%
TX	\$1,212	\$1,520	\$308	25.4	16.7%
UT	\$1,763	\$4,702	\$2,939	166.7	22.5%
WA	\$3,501	\$6,436	\$2,935	83.8	11.1%
WI	\$3,942	\$2,887	-\$1,055	-26.8	4.9%

^a For inclusion, a state must meet 3 criteria: 1) be represented in both the 2003 and 2008 Duncan Associates surveys, 2) have 4 or more jurisdictions reporting in the 2008 survey, and 3) have average non-utility impact fees of \$1,000 or more in both years.

^b Fee amounts refer to the charges on the same standardized unit described in Table 1.

^c US Census figures

Table 3: Impact Fee Revenues in Florida

County ^a	Impact Fee Revenue ^b 2005-2006 Fiscal Year (\$)	Population ^b 2006	Impact Fee Revenue Per Capita
Alachua	1969343	236,977	\$8.31
Baker	681084	25,057	\$27.18
Bay	18248108	164,184	\$111.14
Brevard	59707911	531,959	\$112.24
Broward	40769512	1,772,745	\$23.00
Charlotte	17763438	153,047	\$116.07
Citrus	22949770	137,009	\$167.51
Collier	77853704	313,167	\$248.60
Columbia	0	66,809	\$0.00
Dade	241831850	2,376,343	\$101.77
Dixie	113624	14,864	\$7.64
Duval	123871	842,366	\$0.15
Escambia	0	306,621	\$0.00
Flagler	10880793	82,433	\$132.00
Gadsden	105172	46,373	\$2.27
Gilchrist	359387	16,610	\$21.64
Gulf	0	14,013	\$0.00
Hernando	32862061	163,392	\$201.12
Highlands	87520	97,594	\$0.90
Hillsborough	36365444	1,161,882	\$31.30
Indian River	31950600	129,562	\$246.60
Jackson	310556	49,106	\$6.32
Lafayette	12300	7,987	\$1.54
Lake	54996687	289,214	\$190.16
Lee	180316684	570,089	\$316.30
Leon	0	257,901	\$0.00
Manatee	35140259	312,197	\$112.56
Marion	22866530	314,312	\$72.75
Martin	13664183	138,367	\$98.75
Monroe	1755690	74,397	\$23.60
Nassau	8012999	66,505	\$120.49
Okaloosa	383557	182,994	\$2.10
Okeechobee	0	39,998	\$0.00
Orange	366321979	1,055,459	\$347.07
Osceola	78173212	244,522	\$319.70
Palm Beach	136810286	1,266,352	\$108.03
Pasco	109600291	445,871	\$245.81
Pinellas	9225429	922,893	\$10.00
Polk	54767842	558,023	\$98.15
Saint Johns	22870618	168,405	\$135.81
Saint Lucie	56793493	250,270	\$226.93
Santa Rosa	4181806	144,569	\$28.93
Sarasota	64661221	368,303	\$175.57
Seminole	19582010	409,152	\$47.86
Sumter	2311064	68,118	\$33.93
Volusia	31931328	495,813	\$64.40
Wakulla	543100	28,844	\$18.83
Walton	3292655	51,511	\$63.92

^a Because utility impact fees are typically collected directly by the utility company (rather than the local planning or building permitting department), figures reported to the state likely include only non-utility impact fee revenues. Counties reporting no impact fee revenues, but who have utility impact fee programs, are included in both Table 3 and Table 4 for consistency.

^b Aggregate impact fee revenues come from the Florida Department of Financial Services. County population figures are from the US Census.

Table 4: Impact Fee Levels in Florida

County	Year First Used ^a	Population 2000 ^b	Population Growth Rate 1990-2000 ^b	Utility (Water/Sewer) Impact Fees ^c			Single Family Home ^d Non-utility Impact Fees			Per 1,000 sq.ft. Retail ^e Non-utility Impact Fees		
				1990	2000	2006	1990	2000	2006	1990	2000	2006
Alachua	1992	217955	20.0%	1249	1476	1476	0	0	0	0	0	0
Baker	1991	22259	20.4%	0	1000	1000	0	0	1500	0	0	0
Bay	1987	148217	16.7%	1718	1718	1718	0	0	0	0	0	0
Brevard	1981	476230	19.4%	4160	4160	4160	947	947	6090	1304	1304	2028
Broward	1977	1623018	29.3%	2162	2469	3016	827	2315	2628	0	979	1089
Charlotte	1986	141627	27.6%	2770	4913	4913	1884	2510	2510	3457	3203	3203
Citrus	1987	118085	26.3%	2133	2133	3724	1330	1433	6465	2200	2200	5975
Collier	1985	251377	65.3%	1650	2850	5885	874	4591	11749	1853	3429	17933
Columbia	1993	56513	32.6%	0	1725	1725	0	0	0	0	0	0
Dade	1989	2253362	16.3%	683	2447	2447	879	5223	5223	1749	2983	2983
Dixie	1986	13827	30.6%	0	0	0	350	350	525	500	500	500
Duval	1981	778879	15.7%	0	1166	1166	0	0	0	0	0	0
Escambia	1990	294410	12.0%	0	1640	2447	0	0	0	0	0	0
Flagler	1990	49832	73.6%	2743	2621	5280	646	567	5307	1920	1920	1998
Gadsden	1996	45087	9.7%	0	450	450	0	0	0	0	0	0
Gilchrist	1999	14437	49.3%	0	0	0	0	1441	1441	0	2183	2183
Gulf	1999	14560	15.9%	0	650	2000	0	0	0	0	0	0
Hernando	1980	130802	29.4%	1592	2125	3360	1471	2948	9238	1717	2903	6433
Highlands	1994	87366	27.7%	0	3915	5251	0	0	0	0	0	0
Hillsborough	1985	998948	19.8%	3989	3829	3550	1341	2138	2063	3654	3476	3353
Indian River	1985	112947	25.2%	4101	4096	4096	1133	1523	10125	1581	2170	2170
Jackson	1997	46755	13.0%	0	2375	2375	0	0	0	0	0	0
Lafayette	1986	7022	25.9%	0	0	0	150	300	300	150	300	300
Lake	1985	210527	38.4%	2288	2657	3370	298	2630	9944	816	829	3136
Lee	1985	440888	31.6%	2225	2225	2875	2167	3047	7184	3446	4108	5744
Leon	1989	239452	24.4%	3001	4137	4137	271	0	0	1014	0	0
Manatee	1981	264002	24.7%	1880	2423	2925	1664	1742	11347	4690	4830	6628
Marion	1990	258916	32.9%	2600	2600	2600	641	1359	2349	1905	1627	4155
Martin	1987	126731	25.6%	2280	3200	3810	731	5212	6956	2323	5206	10347
Monroe	1986	79589	2.0%	2000	1760	2112	2095	1534	1534	2339	1398	1398
Nassau	1987	57663	31.2%	0	1166	1166	828	933	2593	1886	2139	3745
Okaloosa	1988	170498	18.6%	2000	2000	4000	0	0	0	0	0	0
Okeechobee	1995	35910	21.2%	0	1500	4100	0	0	0	0	0	0
Orange	1983	896344	32.3%	3261	3582	4600	1260	4945	10617	4186	6540	12961
Osceola	1989	172493	60.1%	3713	3870	4150	1259	4087	14467	2298	2298	11239
Palm Beach	1979	1131191	31.0%	2400	3000	3425	3737	6026	11367	2700	4640	6768
Pasco	1985	344765	22.6%	2064	2056	2056	1736	2166	9981	2376	2960	7784
Pinellas	1986	921495	8.2%	1582	2572	2572	857	1632	2066	1446	2723	3627
Polk	1990	483924	19.4%	2560	3890	4633	847	847	12388	2360	2360	4478
Saint Johns	1988	123135	46.9%	2029	3234	3661	1347	2630	7992	1898	1950	6856
Saint Lucie	1986	192695	28.3%	2147	2090	5630	1020	2748	7778	1117	2054	3559
Santa Rosa	1995	117743	44.3%	0	1466	2533	0	0	1656	0	0	2112
Sarasota	1988	325957	17.3%	0	4362	4751	2869	2638	5538	4721	7595	10042
Seminole	1987	365199	27.0%	3091	3091	3091	756	2671	2671	3093	2901	2901
Sumter	1987	53345	68.9%	2188	2700	4070	0	0	2393	0	0	6425
Volusia	1986	443343	19.6%	0	2873	3675	900	2764	8300	1213	1673	3040
Wakulla	1989	22863	61.0%	0	0	0	564	1247	1247	680	1500	1500
Walton	1995	40601	46.3%	0	6045	6045	0	0	0	0	0	0

^a 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.

^b County population and growth rates taken from US Census figures.

^c All reported impact fee levels reflect the levies in place on January 1st 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. Non-residential development pays the ERU multiplied by their calculated “ERU’s” according to the utility company’s detailed schedule regarding the nature of the proposed construction.

^d Calculated using a standardized 1,800 square foot, 3 bedroom home.

^e Counties will often have a more fine level of detail than just the single “retail” category. However, this category is an intuitive choice for a ‘least common denominator’ of sorts since it can be found on all schedules for Florida counties.