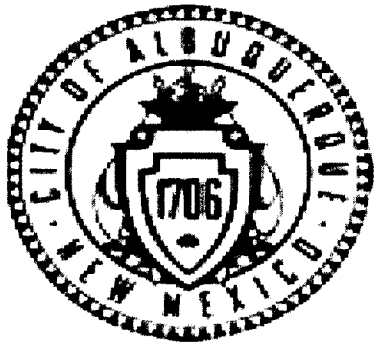


Impacts of Impact Fees

Report to the City of Albuquerque, New Mexico



Arthur C. Nelson, Ph.D., ASCE, FAICP
Metropolitan Institute
Virginia Tech – Alexandria Center

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EXECUTIVE SUMMARY

Local governments are increasingly seeking ways to pay for public facilities without increasing local taxes. Impact fees, which are one-time charges against new development to help pay for facilities needed to serve it, are one such way.

Conventional wisdom among some is that impact fees shift development out of communities charging them, stifle economic development, thwart affordable housing production, and raise housing prices. Solid empirical evidence supporting these claims is wanting in many respects. Recent studies are shedding important light in these potential effects of impact fees, however.

This report addresses the controversy surrounding impact fees by reviewing the relevant literature addressing the effect of impact fees on development patterns, local economic development, affordable housing, and housing prices. Central findings include:

- **Property tax revenues increasingly fail to cover the full costs of the infrastructure needed to serve new development.** Political resistance to property taxes compromises the conventional way to pay for infrastructure needs brought on by new development. Consequently, new property values would have to be very high or property tax rates raised across the board to pay for the full array of infrastructure needs.
- **Impact fees, like user fees, offer a more efficient way to pay for infrastructure than general taxes, and ensure benefits to those who pay them.** Academic literature suggests that the aggregate benefits of impact fees improve efficiency in the provision of infrastructure. While impact fees often do not reflect the full price of infrastructure improvements, they do make the economic linkage between those paying for and those receiving benefits more direct, and so promote economic efficiency. The obvious direct economic benefits include the actual infrastructure investment, such as new roads, new schools, and new water and sewer extensions. Indirect benefits include improved predictability in the marketplace, knowing when and where infrastructure investment will occur, and that all developers are treated equitably.
- **Impact fees increase the supply of buildable land.** In the absence of impact fees, local governments may not have the revenue necessary to accommodate growth. With impact fees, they gain necessary infrastructure—water, sewer, drainage, and road facilities—to open new parcels of land development.
- **Impact fees may shift some marginally efficient development elsewhere but there is little evidence of substantial shifting.** Studies in Illinois and Georgia suggest that impact fees may have a short-run effect in shifting new development but not in the long run.
- **Impact fees do not slow job growth.** A Florida study found that impact fees are not a drag on local economies and may be the grease that helps sustain job growth in the local economy.

• **Impact fees have complex effects on housing prices.** Two particularly rigorous studies suggest that while it seems reasonable to conclude that impact fees raise housing prices, it is not because they are simply passed forward to home buyers. Instead, higher housing prices are associated with lower property taxes, the capitalized present value of which equal or slightly exceed the fees. Moreover, the value created can be more than the fees themselves if the fees are used to leverage other revenues to finance facilities that the housing market values. In a word, impact fees may raise housing prices because they improve housing value.

• **Impact fee effects on affordable housing depend on calculation methods and permitting delay.** There are virtually no studies looking at the effect of impact fees on affordable housing. We note three ways short of outright waivers in which local policy and impact fee design can offset much of the potential price effects of impact fees including a) providing the very infrastructure needed to expand the supply of buildable land thereby moderating any price effects associated with shortages in land supply relative to demand, b) refining impact fee calculation to reflect size, service area, and location adjustments that can reduce impact fees on affordable housing, and c) expediting the review and permitting of affordable housing projects.

• **Impact fees are no panacea.** Housing prices, housing production, economic development and job growth depend on myriad of factors - not just the imposition of impact fees. However, given the right fiscal environment, impact fees can directly fund vital infrastructure improvements and indirectly promote housing production and local employment at the same time.

While impact fees will continue to draw detractors they do appear to have become a pragmatic way to financing local infrastructure needs. Without them, growing communities may not be able to sustain growth. Research is beginning to find that because impact fees fund infrastructure needed to sustain development, they may have the effect of increasing the supply of buildable land, improving predictability in the development process, and indirectly promoting local employment as a result.

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I. Introduction

When it comes to paying for the costs of growth, local governments throughout the U.S. are by and large stuck with the tab. In rapidly growing localities this responsibility is more acute, as demands for new infrastructure—i.e., roads, sidewalks and sewers, parks and recreation facilities, schools, and public safety—can outstrip politically feasible means to pay for them through such traditional means as taxes.

However, boosting taxes to pay for the costs of new development has become increasingly difficult. During the 1970s, inflation boosted property values and, in turn, property taxes, creating substantial taxpayer resentment (Altshuler and Gomez-Ibanez 1993). In such an environment, localities hesitated to raise taxes to pay for additional expenses associated with new development. In response to taxpayer antipathy, many municipalities are seeking to shift the burden of paying for public improvements to developers. These charges, known as "impact fees," are onetime assessments by local governments on new development, or the owners of new development, to help pay for the existing, new, or expanded infrastructure needed to serve that development.

In practice, impact fees bridge the gap between the cost of new municipal infrastructure and available funds. They also provide politicians some cover for financing the necessary costs of new development. Consider the historical lineage of impact fees. Antecedents to impact fees were in-kind exactions, land dedications or build/install requirements for the construction of specific facilities. Impact fees, paid as monetary instead of in-kind contributions, came into wide use beginning in the 1970s, providing a more efficient and flexible means of local infrastructure financing than negotiated or ad hoc exactions. The cities and counties of some states—such as California, Colorado, Florida, and Texas—have adopted impact fees widely as a means of financing infrastructure serving new development. The list of states enabling impact fees is impressive, as seen in Table 1.

The increasing popularity of impact fee owes to several factors. First, since the early 1980s the federal government has devolved certain powers and reduced subsidies to state and local governments for the construction of public infrastructure. Second, state and federal mandates on such infrastructure as erosion control, wastewater treatment, highway construction, and stormwater drainage—just to mention a few—have raised the price of public infrastructure.

Third, in the 1970s and 1980s, stagnating incomes fueled popular resentment against new taxes. That sentiment was sustained through the 1990s even during times of relative prosperity, as evidenced by Virginia's rollback of its automobile tax, Georgia's expansion of homestead exemptions to the property tax, and Oregon's caps on local property tax rates.

Table 1. State Impact Fee Enabling Acts

State	Year
Texas	1987
Maine	1988
California	1989
Vermont	1989
Nevada	1989
New Jersey	1989
Illinois	1989
Virginia	1990
West Virginia	1990
Washington	1990
Georgia	1990
Pennsylvania	1991
Oregon	1991
Arizona	1991
New Hampshire	1991
Indiana	1991
Maryland	1992
Rhode Island	1992
Idaho	1992
New Mexico	1993
Wisconsin	1994
Colorado	2001

The results is that today, new infrastructure investment has lagged under these political and financial constraints, resulting in deteriorating infrastructure quality, congestion of existing facilities, and inadequate infrastructure to accommodate new development. The choices local governments face are bleak—continued popular resentment of higher property taxes or economic stagnation and a reduction in the quality of life. Given this realization, communities and developers have gradually warmed to the idea that impact fees may be a pragmatic means of addressing fiscal shortfalls.

Impact fees remain controversial, however. Developers often complain that impact fees detract from economic growth by driving up costs thereby causing housing consumers to “vote with their feet” by locating in communities with no or lower impact fees. Others say that impact fees are the only feasible means of financing new infrastructure development in a tax-averse political environment. The existence of impact fees shows that the initial homeowners in a community have more political power than newcomers (Beatley 1988; Fischel 2001). Impact fees are a reflection of the unwillingness of existing property owners to pay higher taxes to create addition infrastructure that largely, though not entirely, benefits newcomers.

Are these charges valid? In the first effort to synthesize research addressing impact fee effects, this report looks at the relationship between impact fees and development patterns, economic development, affordable housing production, and housing prices.

II. Development Pattern Effects

Impact fees are a local government infrastructure financing method that shifts the cost of new public infrastructure demanded to support new development from an entire community to those creating demand for new infrastructure. Impact fees may be employed for one or both of two reasons. They may be used as a revenue source and/or they may be used as method of controlling growth. Impact fees, by shifting costs to those causing growth, have the potential to slow the rate of residential development in a community or potentially may shift growth to nearby areas that do not impose impact fees.

Use of impact fees by local governments to finance public infrastructure has expanded at a rapid pace over the past generation. Altshuler and Gómez-Ibáñez found that while only 10% of U.S. local governments used exactions and impact fees before 1960, by the mid-1980s about 90% did. Further, in the 1960s, almost all exaction requirements were limited to on-site in-kind levies while by the mid-1980s 60% of local governments were also employing impact fees to some extent. When impact fees are viewed as regulatory devices, the focus is on their presumed ability to slow the pace of growth. However, as a policy tool, there is a possibility they could also be used to direct growth from undesirable places to desirable places if differential fee structures can be devised and justified.

As local governments move to impose impact fees, they are often confronted with opposition from the development community. For example, in 1987 the city of Phoenix adopted a system of impact fees to help pay for the costs of extending infrastructure to undeveloped areas. There was a great deal of developer opposition and political “unwillingness” to adopt the fees because of the argument that there would be a negative impact on affordable housing and because of a fear of losing new development to neighboring jurisdictions that have no fees.

These and related contentions raise the question: Do impact fees shift the location of development? This section of the report will present both economic theory and empirical evidence that speak to the effect of development impact fees on growth rates.¹ A discussion of theory is followed by empirical work done jointly by Mark Skidmore of the University of Wisconsin-Whitewater and Michael Peddle of Northern Illinois University. We will then examine patterns of building permit activity in the fee imposing jurisdictions in the Atlanta Metropolitan Area.

¹ Much of the work reported here was originally prepared by John Matthews, a doctoral student at Georgia State University and the Georgia Institute of Technology.

A. Theory

Theory relevant to our question can be ambiguous. General theories of land value, theories which date back to David Ricardo and the “leftover principal,” specify that land value is that which is leftover after all other expenses of production, including economic profit, have been satisfied.² If this were the only consideration, the cost of a newly imposed impact fee would be offset in reduced price of land, and there would be no need for either developers or users of development to move or shift location.

But, leftover revenue is not the only issue. Varying levels of demand and supply as well as mobilities of both developers and “consumers” of development also need to be considered. Tax theory, and economists make no distinction between a fee and a tax, would indicate that there might be reason for developers, buyers, or both to shift location to avoid increased costs represented by impact fees.

Consider two conditions. The first is tax incidence. As price is increased due to a tax, demand is decreased as is quantity sold. Consequently, the supplier’s revenue is decreased, even though price is increased. The cost of the tax is often shared by consumers and suppliers. The second is the tax incidence in a situation where supply is relatively inelastic - that is quantity supplied cannot easily change relative to market conditions. In this case, the bulk of the tax burden falls on the supplier. Thus, the burden of a tax is independent of whom (supplier or consumer) is taxed, but is dependent on the elasticities of supply and demand.³

Several important implications for the impact fee question arise from this analysis: First, land, if it is sold for development, will absorb a higher proportion of the fee to the extent that alternative supplies of land - substitutes - are available in non-fee charging areas, but still in the same market. In other words, if a developer can move from one community to another in the same general market area to avoid a fee or pay a smaller fee, he/she will. The reason is that developers staying in the community will realize a lower rate of return because they will need to pay the fee out of normal profit. Huffman, Nelson, Smith, and Stegman conclude:⁴

In the short term, both buyers and developers share the burden. ... Unless developers offset their share of the fee by reducing lot or dwelling unit size, quality and amenities, or by reducing the cost of land purchase, their share of the fee burden will come out of profit. Assuming capital is relatively mobile, developers will exit the market after they have sold their pre-fee inventory....⁵

While Huffman, Nelson, Smith, and Stegman suggest that developers may leave communities that impose development impact fees for ones that do not or charge less

²See, for example, Arthur O’Sullivan (2000), *Urban Economics* (4th ed.), McGraw-Hill, Boston, p. 185

³For a full exposition of this theory, see Harvey Rosen (1999), *Public Finance* (5th ed), McGraw-Hill, Boston, pp. 260-282.

⁴Huffman, Forrest E., Arthur C. Nelson, Marc T. Smith, and Michael A. Stegman, “Who Bears the Burden of Development Impact Fees?”, *Journal of the American Planning Association*, 54 No. 1(Winter, 1988), pp. 49-55

⁵*Ibid*, p. 51

(assuming there are substitutes), John Yinger thinks otherwise.⁶ Using a theory that addresses incidence specific to impact fees, special assessments, and general property taxes as infrastructure financing mechanisms, he concludes that

“any attempt to impose fees for infrastructure that do not benefit new residents will only increase the burden landowners bear. Finally, development impact fees generally confer a small capital gain on existing homeowners and, to the extent housing construction is competitive, do not place any burden on developers.”⁷

Yinger understands that when new residents receive full benefit from infrastructure financed by impact fees (consistent with rational nexus requirements that they do), there is no net increase in incidence on them. If no burden is placed on developers, there would be no need for developers to move to non-fee collecting jurisdictions.

B. Research Evidence

What is the evidence? Unfortunately, research on the effect of impact fees on development patterns is scant. Here, we review one published study in the Chicago area and then one by John Matthews.

The published study is by Skidmore and Peddle who analyzed the effects of impact fees on the rate of residential development in DuPage County, Illinois. They analyzed all 29 cities in DuPage County, Illinois, for the period 1977 through 1992. This is a growing area outside Chicago that has a wide variation in growth rates among its cities. The first city to adopt an impact fee did so in 1972. At the time of the study’s conclusion, ten additional cities had adopted impact fees. Depending on specific models they employed, Skidmore and Peddle got results indicating that a newly imposed impact fee is associated with about a 25 percent reduction in residential development rates.

Although pioneering, their study suffers from many important shortcomings. For one thing, they made no adjustment to reflect before-and-after permitting effects. It is widely known that in advance of impact fees being adopted, developers apply for building permits to generate as large an inventory as they can of pre-fee housing units. This creates a “spike” in permitting that is not accounted for in their research. Second, since many communities in the study area adopted fees late in the study period, the results may reflect more developer behavior to avoid fees in the short run than avoid building in communities charging impact fees in the long run.

These limitations are addressed in a second, as yet unpublished study by John Matthews.⁸ In particular, he analyzed timing effects of impact fees on residential permitting in metropolitan Atlanta. The State of Georgia enabled local jurisdictions, both cities and counties, to impose impact fees in 1992. In addition to water and sewer tap-in fees, Georgia law allows local governments to impose fees for six types of

⁶Yinger, John, “The Incidence of Development Impact Fees and Special Assessments”, *National Tax Journal*, 11 No. 1, pp, 23-41

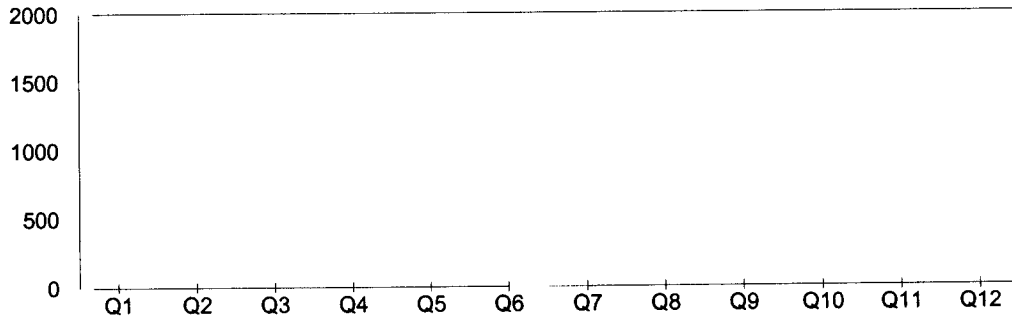
⁷*Ibid*, p. 37

⁸ John Matthews, “Border Effects of Impact Fees or Not ‘Jumping’ to Conclusions.” Atlanta: Graduate City and Regional Planning Program, Georgia Institute of Technology, 2002.

infrastructure: transportation, storm water drainage, parks and recreation, police, fire, and libraries. Mathews devised case studies of before-after effects of impact fees in the state's largest metropolitan area: Atlanta. Of the 10 counties and 63 cities in the Atlanta Metropolitan Area, only three counties and seven cities impose impact fees. His study was of Fulton and Cherokee counties, respectively the largest and fastest growing in the state.

Mathews gathered data on the number of residential building permits issued each month for 18 months before and after the county began collecting impact fees. For In Fulton County, Mathews found what appears to be a significant reduction in permit activity following adoption of its impact fee ordinance in November of 1992. Closer inspection, however, shows that the months preceding adoption of impact fees saw significantly higher numbers of permits issued with a negative trend in the following three quarters. Indeed, adjusting for pre-fee behavior, the presence of impact fees loses its significance. (See figure 1.) His analysis of Cherokee County found similar effects.

Figure 1. Fulton County, Georgia, Permit Activity by Quarter



C. Summary

These two studies shed important light. It would seem that impact fees may have a short term effect as developers respond to initial implementation but that effect is short-lived. It is natural to expect developers to bank building permits to the maximum extent possible before impact fees are imposed. Communities should expect there to a spike in permitting before fees are adopted, followed by a precipitous fall off. Within about 18 months or less, post-fee permitting activity will be restored to their pre-fee level, however.

III. Economic Development Effects

Let us now turn to economic development effect, in particular the relationship between employment change and impact fee expenditures. Again, research is sparse—in fact, only one study exists. This section of the report reviews theoretical considerations and summarizes results of the only study that addresses this issue directly.

A. Theory

Two questions are examined here: What is the role of impact fees in infrastructure and land supply; and are impact fees a tax or investment? Each question provides important context for understanding the effects of impact fees on employment and economic generally.

What is the Role of Impact Fees on Infrastructure and Land Supply?

Often overlooked in debates about impact fees is what they are actually intended to do. The fundamental purpose of impact fees is to generate revenue to build infrastructure serving new development (Nelson 1988). In the absence of impact fees, local governments may have difficulty raising the revenue necessary to accommodate growth, in terms of paying for new and costly infrastructure. In such cases, growth either is stymied through lengthy planning processes that are preoccupied with the efficacy of development when facilities are congested (such as roads and schools), stopped through moratoria, or displaced to other communities.

There is another purpose to impact fees that has been overlooked too long in the literature: their impact on land supply. Communities may have adequate facility capacity, such as in water and sewer treatment, but the distribution network may be insufficient to accommodate new development. From an economic development perspective, the availability of key infrastructure such as water, sewer, drainage, and roads to land to make it buildable is perhaps the important ingredient to increasing the supply of land commensurate with development pressures (see, e.g. Blair and Premus 1987).

Finally, impact fees can reduce risk and uncertainty. Studies of Sarasota, Florida and Loveland, Colorado, found that impact fees appeared to reduce the uncertainty and risk of development and often are used to leverage the use of other non-impact fee funds to expand infrastructure (Nelson and others 1991, 1992). The effect is to provide developers with a reasonably predictable supply of buildable land. This relationship between impact fees and the supply of buildable land has been mostly ignored in the literature (with the notable exception of Kaiser and Burby 1988)

Are Impact Fees a Tax or Investment?

The effect of impact fees on economic development is controversial. Impacts fees can be considered a kind of dedicated tax because revenues are required by law to be spent on the infrastructure for which they were collected. In this respect, impact fees are simultaneously both dedicated taxes and contributions to capital formation. But in the

political debate some argue that the fees invariably act as a prohibitive tax on capital, stifling investment and job growth.

Others contend that growth can depend on the timely provision of new infrastructure that impact fees make possible. It is important to note that the legal justification for impact fees is fundamentally different from general taxes, falling under the rubric of municipal police powers, like zoning, which protect the health, safety, and welfare of the community. Though they may behave like a dedicated tax, we defer to custom using the term “impact fee” because their legal authority derives not from the power to tax but from the power to regulate.

Those who suggest that impact fees are a drag on the local economy would formally argue that they behave like an inefficient deadweight tax. In a competitive market, a deadweight tax would result in the supply of buildable land falling and its price rising by an amount sufficient to offset it. This would delay new development (Downing and McCaleb 1987). Likewise, if impact fees act as a tax on capital without creating value in the development process, markets will adjust by shifting the location of development and/or by raising prices, thus cutting consumption and eroding economic efficiency.

If, on the other hand, impact fees work on the supply side as a prospective investment to expand the supply of buildable land, the pace and quality of economic development could feasibly depend on imposition of the fees. Without impact fees the supply of buildable land could fall and the price of buildable land could rise thereby increasing the cost of development. So an important question is whether impact fees act as a deadweight tax, often considered to be a drag on growth, or as a practical means of investment in needed infrastructure, encouraging new development and economic growth.

Theoretical Summary

If impact fees are perceived as a deadweight tax, communities with impact fees will tend to develop more slowly than communities that do not use them. However, if impact fees contribute to capital formation in the form of infrastructure development needs, then communities assessing fees should perform better than communities without them, all things considered. Before proceeding, a further review of how impact fees can be viewed as a contribution to capital formation is in order. First, the impact fee itself is a payment for which infrastructure is returned. Under *rational nexus* criteria, the fee cannot exceed the cost of infrastructure apportioned to the development *net* of other revenues used to finance the same infrastructure. For example, if federal or state funds are available to help finance infrastructure, the impact fee is based on the cost of infrastructure *less* those external revenue sources. In this way, as noted earlier, the impact fee can leverage more infrastructure investments than the development itself pays for through the fee.

Second, the impact fee must be spent on infrastructure in ways that benefit new development (albeit not necessarily on-site) and are roughly concurrent with its anticipated impacts, if not before. Road improvements, water and sewer expansions, for example, are typical facilities for which impact fees are spent.

Third, impact fees must be expended based on a plan (Nicholas, Nelson, and Juergensmeyer 1991). This means that developers can reasonably forecast when and where infrastructure will be built. The supply of land made available by such

infrastructure investments is thus known in advance. The planning and capital improvements programming behind impact fees reduces risk and uncertainty while expanding the supply of buildable land reasonably predictably.

Finally, recall Brueckner's (1997) conclusion that impact fees can elevate the aggregate value of the community more so than general taxation. The reason in part is that efficiencies are gained in matching revenues with impacts of new development. The higher value may make a community more attractive to new development, especially development associated with new jobs.

B. Research Evidence

Consider the central question:

Between communities that are identical in every respect except for impact fees, are those with impact fees associated with the generation of more jobs at the margin than those without, all things considered?

This question guided research by Nelson and Moody (2003) who used panel data to examine the association between local economic development, defined here as change in jobs, and impact fees in the 67 counties of Florida during the period 1993 to 1999. Florida's counties vary considerably with respect to size (7,000 to 2.1 million residents), economic growth (strongly positive to stagnant or even negative), and demographic characteristics (affluent, minority composition, urban, rural).

The time-series aspect of the panel data follows the counties from 1993 to 1999 through economic cycles and varying levels of impact fee assessment. For example, in 1997 only about half the counties (34) assessed impact fees, and, of those that did, the total revenue collected was \$196.9 million, varying by county from \$891 to \$57.3 million. However, in 1993, total revenue collected from impact fees in those 34 counties was only \$100.5 million. Reasons for growing revenue include a rebound from an economic recession affecting the state during the early 1990s, larger lists of facilities financed in part from impact fees, and higher assessments.

During the study period only about half the counties had jurisdictions collecting impact fees, and, of those where fees were collected, the variation in aggregate countywide collections was substantial. There thus exists among Florida's 67 counties sufficient variation in the data to evaluate the "boost-or-drag" effects of impact fees on job growth.

Florida is also an appropriate state to examine since it has arguably the most extensive history of applying *rational nexus*-style development impact fees and therefore the most likely to reveal an observable cause-and-effect relationship between impact fees and tangible economic benefits (Nelson 1988; Nicholas, Nelson, and Juergensmeyer 1991).

Their statistical analysis found a significant positive association between impact fees collected per building permit in one year and job growth over the next two years. This finding holds even when controlling for base year employment growth, prior decade employment growth, property taxes per capita, the value of local building permit activity,

regional, temporal, and other factors. Their finding is consistent with our hypothesis that impact fees spent on infrastructure development are not a drag on local economies with respect to job growth but, instead, can be beneficial to them.

C. Summary

The relationship between impact fees and economic development is certainly complex. For their part, Nelson and Moody caution that more rigorous analysis should be undertaken to explore the relationships. Nonetheless, a conservative interpretation would at least claim that no discernable adverse economic impacts from impact fees could be found. A liberal interpretation of these model results would argue that the imposition of impact fees has a positive effect on local employment.

IV. Housing Price Effects

We turn our attention now to the effect of impact fees on housing prices. We consider mostly effects under conditions of relatively normal price elasticity of demand; that is, the housing market is relatively competitive. There is reasonable consensus that when housing markets are relatively non-competitive, home buyers are more likely to absorb impact fees than other actors in the home production process. As the vast majority of housing markets are relatively competitive, however, our focus is on such markets.

A. Theory

Recent work by Keith Ihlanfeldt and Michael Shaughnessey has shed important light on the relationship between impact fees and housing prices. They begin by noting there are “old” and “new” theoretical approaches to addressing this issue. The old view, advanced by Altshuler and Gómez-Ibáñez (1993), Delaney and Smith (1989a, 1989b), Downing and McCaleb (1987), Stegman (1986), Huffman, Smith, Nelson and Stegman (1988), and Singell and Lillydahl (1990) view impact fees as an excise tax on developers regardless. As such, the supply of new housing must be reduced reflecting the higher prices paid by new homebuyers along with a lower net price received by developers and, conceivably, lower number of new homes built. The share of the impact fee paid by each element in the market depends on the substitutes available to it. Assuming that housing consumers do not distinguish between new and existing housing of equal quality, Ihlanfeldt and Shaughnessey suggest there should be an increase in the price of existing housing that matches the increase in the price of new housing.

In the long run, if developers cannot shift the cost of the fee forward to home buyers they will attempt to shift the fee backward to sellers of land for development. Although Huffman, Smith, Nelson and Stegman argue that backward shifting may be unlikely in many markets because landowners have a reservation price below which they will not sell, Ihlanfeldt and Shaughnessey conclude this argument is not persuasive. They acknowledge that while a reservation price may prevent price concessions in the short run, it does not eliminate the possibility that impact fees will be shifted backward in the longer run. Moreover, in a weak market occasioned by the business cycle, reservation prices are likely to decline resulting in backward capitalization of at least part of the fee.

The “new” view is advanced by Yinger (1998a, 1998b) and more recently by Nelson and Moody (2003) in the context of economic development. According to this view, impact fees a) reflect the cost of providing facilities needed to serve new development, and b) if they moderate property taxes that would otherwise have been assessed such savings will be capitalized. Again, a relatively competitive market is assumed, meaning that new homebuyers are reasonably mobile.

Ihlanfeldt and Shaughnessey expand on the new view by noting that although impact fees are not shifted forward to new homebuyers normally, “the benefits that accrue to new homebuyers from the infrastructure financed from the fee are capitalized into new home prices” (p.3). Thus, if price increases associated with impact fees is merely equivalent to the capitalization of the benefits accruing from the fee, then the incidence of the fee falls on neither the developer nor the landowner. That the homebuyer pays more is reflective of higher value received in return for the impact fees

paid. Our interpretation is that if impact fees are effective, they ought to raise the value of housing because they confer benefits taxes will not.

Ihlanfeldt and Shaughnessey go on to suggest that if the benefits from the new facilities financed from impact fees are valued highly by new homebuyers, it is possible that housing prices will be higher than the fees paid. Our interpretation follows this logic. We note that impact fees rarely cover the full cost of facilities, typically financing less than half the cost. However, because impact fees must be spent to deliver the quality or level of service on which the fee is predicated, local government often leverages the fees with other revenues to provide the facilities. In this chain of events, an impact fee may a) assure a quality or level of service in one community that may not be evident in competing communities, b) add value to homes by providing facilities at a level or quality that home buyers value at least equal to the cost of the fee, and c) add value to housing that is higher than the fees themselves if they are leveraged to provide facilities of higher value than the fees assessed.

How the impact fee is capitalized according to the new view is traced by Ihlanfeldt and Shaughnessey. Initially, it is a given that almost all local governments rely on the property tax to finance new facilities. Assuming there is no change in quality of facilities accompanying the move away from property tax reliance to impact fees, the new view suggests that prices for both new and existing homes will go up. "The increase in prices should equal the capitalized value of the property tax savings that homeowners expect from the reduction in the tax rate. The tax rate declines because the imposition of the impact fee shifts the costs of new infrastructure from existing property owners to developers" (p.4).

B. Research Evidence

Ihlanfeldt and Shaughnessey review the leading studies evaluating the price-effects of impact fees on housing prices, noting significant theoretical and methodological weaknesses in all of them. Fortunately for us, they build on these weaknesses by devising a methodology based on the new view and applying it to Dade County (Miami), Florida.

Dade County is composed of about a dozen cities varying considerably in size. Cities assess different levels of impact fees for different bundles of facilities. The county itself also assesses impact fees that vary by service area. Using a two-stage least square regression analysis, Ihlanfeldt and Shaughnessey evaluated the prices of new and existing homes over the period 1985 through 2000. Impact fee assessments ranged from \$0 in some locations to \$5,239 (excluding water and wastewater fees that did not vary). Their sample included sales of all new (39,792) and existing homes (107,376) transacted during the study period. Theirs is the largest and most statistically sophisticated analysis of the relationship between impact fees and housing prices yet undertaken.

What did they find? They found a statistically significant association showing that housing prices rose about \$1.60 for each \$1.00 of impact fee collected. They associated the first dollar of increase with property tax savings. In a second as yet unpublished study using substantially the same methodological approach Douglas A. Campbell (2004) found a coefficient of \$1.50.

What about the other 50 or 60 cents? Consistent with the new view of impact fees, our interpretation is that they may create more value in housing than the fees assessed themselves for two reasons. First, communities with impact fees may be viewed, in a relatively competitive market, as having a commitment to provide and maintain facilities at a certain quality or level of service that home buyers appreciated. This provides home buyers with a sense of certainty about the quality and quantity of facilities provided in the future regardless of growth pressures. Second, and perhaps more important, impact fees are usually leveraged with other funds, often state or federal funds, to finance facilities. For example, it is a common practice in Florida to use road impact fees to pay for right-of-way acquisition and engineering, which account for about half the of road construction, with the actual construction done by the state. Similar examples exist with respect to schools and libraries, although less so with public safety, parks, recreation, and cultural facilities. On balance it seems reasonable to conclude that impact fees may create value in homes through such leveraging of local for state or federal funds.

C. Summary

It would seem reasonable to conclude that while impact fees may raise the price of housing it is not because they are simply passed forward to home buyers (if they cannot be passed backward to the sellers of land to be developed). Instead, they may a) raise the price of housing because they reduce property taxes and b) create more infrastructure value than the cost of the fees itself.

V. Affordable Housing Production Effects

Although related, we divide housing effects into affordable housing production and housing price effects. This section addresses affordable housing production effects. One of the chief concerns about impact fees is not necessarily whether and to what extent they may increase housing prices (and values) but whether the production of affordable housing is jeopardized. Unfortunately, we can find no rigorous research addressing this issue. In this section we discuss the potential implications theoretically and then in terms of the role of policy design in dampening potentially adverse affordable housing production effects.

A. Theory

The heart of the concern is that impact fees will be passed on the homebuyer and for lower income households this may put housing out of reach, at least for ownership. As we have seen above, impact fees probably increase housing prices because they a) lower property taxes the savings of which are capitalized, b) create value by providing certainty of facility quality and quantity, and c) are often leveraged with extra-jurisdictional funds to provide greater value in total facilities provided than financed locally. The relationship between impact fees and affordable housing production are quite nuanced, however. Three dynamics that may be at work here.

First, consider what impact fees actually do: they provide facilities needed to accommodate growth. If, in the absence of impact fees, new facilities cannot be provided to meet the demands of growth, development may be slowed. In contrast, because they provide facilities needed to accommodate growth, impact fees may increase the supply of buildable land in a manner that is more responsive to growth than the status quo. If so, upward pricing pressures that may occur in absence of buildable land supply may be moderated.

Second, impact fees may reduce the time needed to review proposals for development. In the absence of fees, local governments may need to review development proposals for their full impact on facilities and this can delay the decision-making process. As “time is money” this delay can lead to higher housing prices. Impact fees may not reduce the review period by much but at least with respect to facilities financed in part by impact fees the review period should be reduced.

Third, impact fee design can become more sensitive to the real impacts of affordable housing than perhaps is the case presently. Let us review some of those design considerations.

B. Design Considerations

The New Mexico Development Impact Fee Act allows local governments to waive impact fees on affordable housing. Affordable housing is not defined, leaving that to local governments to determine, however. Neither does the law indicate how foregone revenues should be compensated. This section reviews some design approaches that

may be considered by New Mexico communities before resorting to waiving impact fees outright on affordable housing.

To begin with, consider that impact fee practice requires that fees be based on the impact of new development. Often, “impact” for residential development is based solely on housing unit or unit based on type of residential unit such as apartments and single family detached. They are also typically based on single service areas covering entire jurisdictions. By designing impact fees to be sensitive to house size, service area, location, and timing (through expedited permitting) it may be possible to meet affordable housing needs without waivers, or at least sizeable waivers.

House Size

Impact fees tend to be flat rate charges on new development. For example, park facility impact fees are routinely based on the average household size of new residential units. If the average household size is three persons per home and the average cost to provide park facilities is \$500 per person, the impact fee assessed against all new residential units is \$1,500 regardless of house size or income of the buyers. On a \$75,000 home, the fee is two percent of the value; on a \$150,000 home it is one percent of value; and on a \$1,500,000 home it is one-tenth of one percent of value. Under this scheme, the fee is regressive since lower income households buying smaller homes are paying proportionately more for the same service than higher income households buying larger homes. While solving regressivity may not be a direct objective of impact fee policy, impact fees can nonetheless be more calculated precisely to achieve proportionality with respect to house size and by implication income. Consider the following data from the American Housing Survey (2001) in Table 2:

Table 2. Occupancy and House Size Relationships 2001

	<500	500-999	1000-1499	1500-1999	2000-2499	>2500
Characteristic	Sq. Feet	Sq. Feet	Sq. Feet	Sq. Feet	Sq. Feet	Sq. Feet
Persons per unit	2.10	2.35	2.57	2.73	2.91	3.04
Lot size in acres	0.21	0.24	0.31	0.36	0.42	0.51
Household Income	\$19,800	\$25,000	\$35,000	\$50,000	\$61,700	\$74,300
House Value	\$42,000	\$57,000	\$90,500	\$124,800	\$154,300	\$210,700

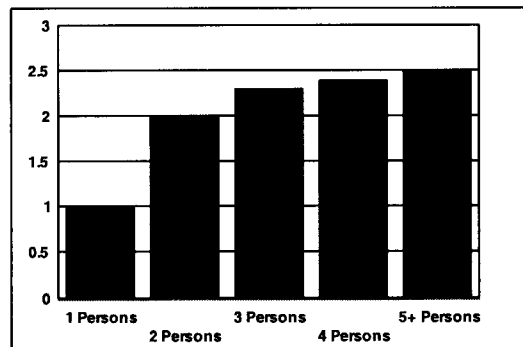
Source: *American Housing Survey (2002)*.

This table shows that the larger the home the higher the number of occupants and coincidentally the higher the home value and income of the household occupying it. Tailoring impact fees to dwelling unit size will result in more refined calculations of impact fees. In this way, calibrating impact fees to reflect house size will lead indirectly to an impact fee structure sensitive to income and property value, albeit not perfectly. While an impact fee calculated to reflect occupancy levels would result in the 2500+ square foot home paying 50 percent higher impact fees than the home at 500 square feet, that home is worth about five times more than the smaller home while the owners

earn about 3.5 times more. Still, this is an improvement over the scenario used in many communities.

There are other aspects of “size.” For example, Figure 2 shows the mean number of vehicles by number of people in a household based on the *Nationwide Household Transportation Survey 2001*. The larger the household, the higher the number of vehicles in that household.

Figure 2. Mean Number of Vehicles by Number of People in Household



Source: *Nationwide Household Transportation Survey 2000 (2002)*

Similar relationships are found with respect to trips per household and total vehicle miles traveled annually.

The relationship between lot size and consumption is evident in other respects. Studies of water and wastewater consumption indicate that larger lots lead to higher rates of consumption. Because we know from Table 2 that larger lots are also associated with higher occupancy levels, we may deduce a relationship between house size and consumption of water and wastewater. The bottom line is that refining impact fees to reflect size of housing unit is a reasonable way to apportion impact fairly while indirectly addressing affordable housing concerns.

Service Area

Impact fees are calculated for service areas. In some instances the entire jurisdiction may be one service area. For planning purposes, service areas can be designed to reflect affordable housing considerations. For example, Tucson’s downtown “infill” area is actually a service area without impact fees. San Diego’s three service areas for many years did not assess impact fees in the inner city service area in part to facilitate affordable housing production there. Albuquerque’s planned growth strategies may lead to service areas to achieve similar outcomes. Because some areas of a community may be more costly to serve than others, crafting impact fees based on service area differences could lead to lower fees for housing in lower-cost service areas. This does

not solve the problem of how to provide affordable housing in all communities but it may help.

Location

Within service areas there may be special consideration given to advantages of location. For example, recent studies indicate that homes close to public transit typically use transit more frequently than homes farther away. It is for this reason, for example, that Atlanta, Georgia, reduces road impact fees by half for new developments within one-quarter mile of transit stations and a quarter for developments between one-quarter and one-half mile. As road impact fees tend to be the highest or close to the highest fees assessed, reducing them can facilitate affordable housing production. Exploiting more of these relationships may allow impact fee policy to facilitate the production of affordable housing.

Expedited Permitting

The old axiom that “time is money” is true perhaps moreso for affordable housing production than for any other housing. In many parts of the country, conventional subdivisions take one or two years to process. Subdivisions with affordable housing elements such as smaller lots or cluster homes can take longer to process because of the need to process zoning variance or conditional use permits, or even to change the underlying zoning. To help solve this problem, Florida requires an expedited review process for developments that include affordable housing. In effect, such proposals go to the head of the line in the permit processing queue. Oregon leads the nation in expedited permitting by requiring a decision on land use actions within 120 days of application. Expedited permitting saves so much time in processing developments for affordable housing in Orlando’s Greenleaf planned development, for example, that homes there can afford to be assessed impact fees (albeit tailored to house size, lot size, and location resulting in lower impact fee assessments than elsewhere).

C. Summary

Assuming that impact fees raise the price of housing, a variety of mechanisms can be employed to reduce impact fees on affordable housing without resorting to an outright waiver. In this section, we have reviewed how refined impact calculations, service area and location adjustments, and expedited permitting are among the options to do so. All approaches may be considered before deciding whether to waive impact fees altogether.

VI. Implications

Impact fees have become an important facilitator of community growth and development over the past generation. They are becoming so widely used that to some extent growing communities not using them are considered unusual. Impact fees are not without debate, however, especially since they represent a substantial shift from prior financing practices that relied on federal, state, and local taxpayers to the smaller base of mostly new development. The prevailing debate these days surrounds the effect of impact fees on development patterns, economic development, housing prices, and affordable housing. Let us review the major findings of this report.

First of all, political resistance to property taxes compromises the conventional way to pay for infrastructure needs brought on by new development. Consequently, new property values would have to be very high or property tax rates increased across-the-board to pay for the full array of infrastructure needs.

Second, unlike taxes, impact fees are dedicated to providing facilities needed by new development. In this respect, the literature suggests that the aggregate benefits of impact fees improve efficiency in the provision of infrastructure. While impact fees often do not reflect the full price of infrastructure improvements, fees do make the economic linkage between those paying for and those receiving benefits more direct, and so promote economic efficiency. The obvious direct economic benefits include the actual infrastructure investment, such as new roads, new schools, and new water and sewer extensions. Indirect benefits include improved predictability in the marketplace, knowing when and where infrastructure investment will occur, and that all developers are treated equitably.

Third, in the absence of impact fees, local governments may not have the revenue necessary to accommodate growth. With impact fees, they gain necessary infrastructure to open areas for development.

Fourth, impact fees may shift some marginally efficient development elsewhere but there is little evidence of substantial shifting. Studies in Illinois and Georgia suggest that impact fees may have a short-run effect in shifting new development but not in the long run.

Fifth, impact fees do not appear to slow job growth. Our review of recent work in this area suggests at minimum that impact fees are not a drag on local economies. They could actually be the grease that helps sustain job growth.

Sixth, impact fees have complex effects on housing prices. Our review of recent work in this area suggests that while impact fees may raise housing prices this is not because they are passed forward to home buyers. Instead, housing prices may rise because impact fees lower property taxes, provide certainty that facilities will not be congested despite growth, and impact fees may leverage extra-jurisdictional investment in facilities of value greater than the fees imposed.

Seventh, impact fee effects on affordable housing depend perhaps mostly on the calculation methods and delay in permitting. There are virtually no studies looking at the effect of impact fees on affordable housing. We noted three ways short of outright waivers in which local policy and impact fee design can offset much of the potential price

effects of impact fees. These include a) providing the very infrastructure needed to expand the supply of buildable land thereby moderating any price effects associated with shortages in land supply relative to demand, b) refining impact fee calculation to reflect size, service area, and location adjustments that can reduce impact fees on affordable housing, and c) expediting the review and permitting of affordable housing projects. All approaches can be used with the result that the need for waiving impact fees on affordable can be moderated if not eliminated from consideration.

In the end, impact fees are no panacea. Housing prices, housing production, economic development and job growth depend on myriad factors. Nonetheless, impact fees can facilitate provision of infrastructure improvements needed to sustain economic development, meet housing needs, and even to generate more affordable housing than may be produced in their absence. Considering tax limitations, communities in growing regions that have impact fees may enjoy a higher quality of life in the long run than communities in those regions that do not have them.

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