

# Comment on Shishir Mathur's “Do Impact Fees Raise the Price of Existing Housing?”

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## *Abstract*

Impact fees raise the price of new homes, which pay the fee directly, and existing homes, which serve as substitutes for new homes. I argue that such fees are excessive because the net economic benefit of additional homes is not included in the calculation and because more efficient financing tools exist. An impact fee actually pushes prices higher than the fee because it is paid when construction begins but collected at the time of sale. Costs are increased by construction period interest and other costs determined as a percentage of the sale price.

Local governments calculate impact fees incorrectly by not including the indirect and positive impacts from construction and occupancy. If these added net benefits were also considered, the fiscal impact would be less and little or no fee would be required. Moreover, other methods for financing infrastructure are available in most states, so impact fees are unnecessary.

**Keywords:** Affordability; Growth management; Housing

## **Introduction**

Mathur lays out a very systematic and clear review of the current state of the science investigating the effects of impact fees. His results confirm the hypothesis that impact fees on new homes increase the price of existing homes. The regressions, one for all homes and two using a housing quality indicator, yield the expected signs on almost all important variables. This research complements an earlier coauthored article providing estimates of the direct effect of impact fees on new homes (Mathur, Waddell, and Blanco 2004).

The present study measures second-order effects. That is, how do impact fees affect the price of existing homes as close substitutes for new homes—the good actually being charged the fee? Data on existing home sales come from the tax assessor's office in King County, WA, where Seattle, the state's largest

city, is located. Mathur adds several municipal-level measures to control for community quality and service differences across the 38 towns and cities in the county. A housing quality indicator is bifurcated into low and high quality to account for unmeasured differences.

Mathur finds that a \$1 impact fee increases the price of existing homes by \$0.83 and the cost of high-quality existing homes by \$1.03. Earlier work by Mathur, Waddell, and Blanco (2004) finds that a \$1 impact fee raises the price of new homes by \$1.66 and the price of new high-quality homes by \$3.58. Neither that study nor this one finds a statistically significant effect on new or existing low-quality homes.

The earlier article uses the same approach and data set, with the obvious difference in new versus existing home data. Together, the articles provide an excellent basis for commenting on the reasons behind the greater price effect, for examining the underlying true net fiscal benefits of additional development, and for looking at alternatives to these fees.

### **Why do impact fees have a greater house price effect?**

The primary findings confirm previous research that impact fees do raise the cost of new and existing homes and that these increases can actually be more than the fee itself. (Mathur cites Delaney and Smith 1989; Ihlanfeldt and Shaughnessy 2004; Mathur, Waddell, and Blanco 2004; and Singell and Lillydahl 1990. ) How is this possible? An impact fee is typically incurred at the time a building permit is granted. That means that a developer or builder must pay interest on the borrowed amount of the impact fee for the duration of the construction. In addition, some home building costs, such as commissions and design fees, are usually calculated as a percentage of the sale price. Consequently, a fee paid early in the production process, such as an impact fee, is further compounded in the final price and can increase the cost by 22 percent or more.

The example in table 1 demonstrates this with an impact fee of \$1,000. Since the fee is paid when construction begins, the added cost of financing the fee from payment to sale is based on a typical permit-to-construction period of three weeks (or eight-tenths of a month), a construction period of 6.2 months, and a sales period of 4.8 months (U.S. Bureau of the Census 2006a, 2006b). Usual interest rate charges for construction loans add almost 10 percent of the fee to the total cost. Sales commissions for new homes vary. Some builders have their own staff, some contract with a brokerage house, and most pay a cooperative fee to a real estate agent who brings in a buyer. A reasonable estimate of just the cooperative fee is 2.9 percent of the final sale

price, which implies an added \$29 as a result of the underlying impact fee. Finally, overhead and return to the entrepreneur (profit) are generally calculated as a percentage of the total cost. Surveys by the National Association of Home Builders (NAHB) suggest that these amount to 9.3 percent of the total, adding another \$93 to the final price of the home.

The accounting approach used by some builders compounds the additional expenses in sequence (NAHB 2006b). For example, the brokerage cost would be applied to the costs incurred to that point—2.9 percent of \$1,098 or \$31.84 instead of \$29. So this example suggests the lower bound of the typical effect. The example in table 1 suggests that the minimum gross effect is 22 percent.

A builder's ability to charge the customer for the impact fee and attendant cost increases will depend on demand in the short run, but must be included in the final sale price in the long run if the builder is to stay in business. As Mathur comments, the study period overlapped a robust housing market in Seattle and King County.<sup>1</sup> Demand was strong, population growth was above normal, and development was impeded by current residents' concern over growth. If housing markets stray from a sustainable equilibrium, as happened in some hot markets in 2004 and 2005, prices are typically driven above long-term economic costs, drop below those costs as excess inventory is depleted, and finally return to a sustainable level where the first sentence of this paragraph applies. In the interim, builders may not be able to pass

**Table 1.** Effect of an Impact Fee on Sale Price

	Time	Dollars
Amount of the fee		\$1,000
Length of time (in months) for		
Permit to start	0.8	
Start to completion	6.2	
Completion to sale	4.8	
Total	11.8	
Added cost to finance the fee (@ 10% for 11.8 months)		\$98
Added cost for brokerage (@ 2.9%)		\$29
Added cost for compensation and profit (@ 9.3%)		\$93
Sum of added costs		\$220
Impact on the final price of the house		\$1,220

<sup>1</sup>A common and simple measure of housing activity is starts per 1,000 population. During this period, King County experienced ratios above 6 and even above 7, while national ratios were between 4 and 5.

impact fees or even other costs along to customers until inventories are back to normal.

I argue that the correct purpose of an impact fee should be to place the cost of added fiscal services and infrastructure on the users of that service or good. In most new housing developments, the developer supplies the interior roads and the utility infrastructure and spreads the cost over the lots or homes they serve. Hence, the capital and operating costs covered by an impact fee are usually broader fiscal needs such as education, public safety, community facilities, and feeder roads. More homes mean more people, and more people require more police, firefighters, teachers, and government employees. In addition, these personnel need capital, such as offices and equipment, to do their work.

However, as Mathur observes, the very fact that a government unit is collecting and expending the impact fees to provide public facilities provokes the legal rational nexus test, which he explains as a three-prong determination. To paraphrase, the new development leads to the need for a new infrastructure, the fee properly reflects the net cost of adding that infrastructure, and the new residents get benefit from the new infrastructure in proportion to the fee. The following section presents the argument that the second of these tests misses revenues directly connected to the new development. That is, the fee calculation improperly omits the offsetting fiscal benefits arising from new residential construction.

### **Why is the current methodology for measuring the size of an impact fee inappropriate?**

The determination of an impact fee should calculate the costs of community infrastructure needs as well as the added revenue generated by the new homes. If the result is negative (costs exceed revenues), then the impact fee makes up the difference. However, the determination of the revenue often understates housing's contribution to the local economy. In most impact fee calculations, the only continuous revenue offset from the addition of new homes is the property tax. This income stream may not be enough to offset all of the added costs of supporting new homes. Considering Mathur's results, it is easy to see why existing residents would favor impact fees, which transfer municipal costs to new residents and build wealth for current homeowners, at least those in the high-quality homes that can most directly substitute for new homes.

I argue that the interactive nature of new homes and new households within the local economy is missing from the estimation of the added benefit

from new development. The housing stock grows because more people and more households need a place to live. These households bring purchasing power with them. When they chose to live in one community instead of another, they bring that new economic activity to their community. That new economic activity in turn generates new revenues for local government. Businesses then expand or new businesses appear and they pay local taxes and fees. These new revenues would not have been possible if the new households had not located there.

NAHB has modeled and calculated a comprehensive comparison of costs and benefits in its Local Economic Impact Model (2005a, 2005b). This more dynamic model takes into account the added revenues as well as the costs of adding homes and households. The model divides impacts into three phases. The first is the construction of homes, including any fees paid to local governments. The second includes the ripple effects of wages and purchases inducing even more wages and purchases within the market (defined as a metropolitan area) during the construction period. The third covers the ongoing impacts from the added 41 percent of household income that is devoted to goods and services provided locally, such as restaurants, hardware stores, personal and health care, laundry, repairs, and services. In each case, only the value added locally is considered new economic activity in the local market. The interactive impacts from this spending and the ensuing ripple effects are calculated using an input-output model that includes local government. The result provides the added local government revenues resulting from an additional household.

Using parameters from an average metropolitan area, new revenue exceeds the cost of adding homes after two years. Average new local taxes and fees include the following: \$13,140 during construction, \$4,650 from the added construction period ripple effect, and \$6,480 per home per year from the added economic activity and value attributable to the new residents. Added fiscal costs include the following: \$19,182 in capital expansion, plus annual operating costs of \$1,418 for education; \$793 for police, fire, and corrections; \$67 for streets, highways, and public transit; \$239 for water and sewer; \$168 for utilities; and \$1,097 for other general government needs. These annual expenses total \$3,783. The NAHB model assumes that the annual surplus (\$2,697) plus the initial construction period revenue are used to service and pay down debt incurred in creating the infrastructure before the home is built. Even under this conservative assumption, the upfront capital cost can be repaid by the end of the second year.

This inclusive and dynamic approach to estimating the costs and revenues from expanding the housing stock encompasses all of the costs associ-

ated with the addition of housing in a metropolitan area. Consequently, it does not attempt to parse the costs between business and homes, but rather estimates the net effect from such an expansion, assuming that the new development is accorded the same level of services as already exists in the community.

The NAHB model does suffer the constraint of estimating the total impact for an entire metropolitan area rather than each government unit. The metropolitan area is a convenient and reliable boundary that contains the market activities modeled. The NAHB approach does not allow for government-level estimates since consumer spending patterns are not necessarily confined to the jurisdiction where the home is located.

### **Other infrastructure finance methods are available**

In determining an impact fee, most governments include the added residential real estate tax as the only ongoing revenue. In the NAHB model, residential real estate taxes account for 42 percent of the added annual revenue (or \$2,700), which would not be enough to offset the new costs. In addition to the incorrect method of calculating appropriate impact fees, I argue that such fees are not a consistent and predictable source of revenue for local governments. Even with innovative mortgage instruments to smooth the impact of rising and falling mortgage interest rates, housing construction is cyclic. I argue that the most recent housing slide is the result of a period of historically low mortgage interest rates and an adjustment to overproduction, which accentuated the cycle. The advanced fiscal planning needed to budget for potential revenue and the consistent revenue stream needed for capital expansion and operating costs makes a cyclic income source, such as an impact fee, a poor financial tool for local governments to rely on.

In addition to an irregular flow, impact fees place the entire burden of expanding infrastructure on new homes. While the courts have narrowed the justifications and uses of impact fees, there is no practical way to isolate the use of infrastructure to just the residents of new homes. More important, some of the expansion is a public good that affects more than the newest residents. The quality and availability of education affect human capital for the whole community. Public facilities such as parks and libraries are open to all. Feeder roads and general transportation improvements and additions affect more than just those who use them. Expansions also relieve congestion elsewhere. The NAHB approach of treating the whole metropolitan area encompasses the notion that responsibility for infrastructure additions should fall on more than just the newest homes. The rational nexus test implies that this

leakage can be ignored, but apparently ignores the interactive positive economic impacts of new housing on the rest of the local economy as well.

Therefore, a look at impact fees should also include a look at more general and noncyclic means of financing infrastructure expansions and improvements. Aside from past reliance on general obligation bonds, a number of more targeted methods have been used. A comprehensive review of these and other forms of infrastructure financing alternatives is available online (NAHB 2006a). Some examples are as follows:

1. *Municipal lease financing.* Five states (Arizona, Iowa, Maine, Texas, and West Virginia) have passed legislation to allow the state to finance the leasing of buildings and equipment. A central state agency sells bonds to finance the lease payments, private companies provide the building or equipment, and individual municipalities pay the lease, sometimes with an option to buy. The lease is not included in the municipality's debt and hence does not affect its independent bond rating.
2. *Special districts.* Five states (Arizona, Colorado, Florida, Iowa, and Texas) have passed legislation to allow the designation of districts with power to deliver services—such as utilities, sewers, and parks—as well as levy assessments or charge user fees. Special districts have the advantage of isolating specific public services and their costs, thereby allowing for greater accountability.
3. *Tax increment financing (TIF).* Another type of special district financing is available in at least 48 states. In its simplest form, TIF allocates the added taxes generated from improvements to pay for those improvements. Utah has used TIF for affordable housing, although in most cases, it is used for larger-scale community improvement and revitalization.
4. *Community development districts.* Eleven states (Connecticut, Florida, Hawaii, Illinois, Louisiana, Nebraska, New York, Tennessee, Vermont, Virginia, and Wisconsin) allow local governments to establish development districts. Since they are usually considered quasi-governmental, these districts can issue tax-exempt bonds to finance specific infrastructure projects that are typically repaid from property tax revenues or user fees. As is the case with special districts, the development district is the distinct delivery mechanism for a defined service and therefore can be held more accountable than general government. Although often used for industrial and commercial needs, development districts can be and have been used for residential purposes.

5. *Design-build and electronic road pricing.* One of the newer methods of financing highways and roads is available because technology allows tolls to be collected without toll booths and the ensuing congestion. While tolls or turnpikes have been used to pay for transportation since the “pikes” were “turned” to allow passage, automatic electronic technology reduces revenue collection costs, does not affect traffic flow, and allows for a nearly infinite variation in fees. At least 18 states have electronic road pricing and tolls that allow governments to contract road financing, as well as construction, to private firms.
6. *State infrastructure banks.* Twenty-four states have passed laws granting the authority to establish infrastructure banks, which act as in-state banks for smaller jurisdictions that do not have the size or depth to finance infrastructure through existing municipal mechanisms such as tax-exempt bonds. These entities can also provide direct financing through their own revolving funds.

## **Conclusion**

Impact fees raise the cost of housing, not only for the homes that are directly taxed, but also for existing homes that serve as close substitutes. Mathur’s research suggests that the substitution effect is strong enough that existing high-quality homes, the closest approximations to new housing, see price increases greater than the amount of the impact fee. Earlier research using the same methodology and data shows greater price impacts on new homes. A simple example demonstrates how costs that accumulate between the time the fee is imposed and the home is sold can boost the final price effect of the initial fee by 22 percent or more.

The need for and the level of impact fees follow a process that does not adequately account for all the government revenues attributable to new residential construction. If the NAHB approach is used to compare the entire impact with the new fiscal costs, then a typical city does not require impact fees. In addition to being unnecessary, revenue streams from impact fees can be erratic. Repayment of bonds or other traditional financing methods for the creation and improvement of infrastructure requires a steady, predictable revenue stream or else governments must substitute other forms of revenue when construction activity falls. Many of the alternative financing techniques elaborated in the preceding section have been used extensively across the country.

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