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PART VII

Issues Surrounding Development Impact Fees
Development impact fees can be used as a pricing instrument that guides development and allows the planning process to adjust efficiently to unforeseen changes in economic conditions. To explain the effects of impact fees on the efficiency of the development and planning process, this chapter first examines the relationship between urban spatial structure and the pricing of public services. A system of pricing that allows for efficient development and explores the political resistance to such a pricing scheme is outlined and then reasons why impact fees are an imperfect but practical alternative to the preferred pricing system are discussed. The probable effects of impact fees on growth and development are examined, and the chapter concludes by analyzing the ability of impact fees to aid in the planning process so as to improve development efficiency in the community. The orientation of the discussion is toward the application of impact fees to single-family residences. This is done only for expediency. Concepts can be applied to multifamily and nonresidential development. 

RATIONALE FOR EFFICIENT PRICING OF PUBLIC SERVICES

The methods used to finance local public services affect the pattern of urban development. Residential density and distance from a sewer treatment plant, for example, influence the costs of providing sewer service. If the true costs of providing sewer services are subsidized and new development does not pay its full share of those costs, inefficient development will occur. Thus, the failure to adequately design a system of charges for public services sewers can lead to inefficient development—which may be characterized as urban sprawl. To more fully understand how this might happen, we need to look at the general nature of the costs of providing local public services. These costs can be divided into three basic components:

1. The capital costs of producing the service. Examples are a sewerage treatment plant and a school building. As a rule, these facilities are subject to economies of scale and declining average cost. Being a function of the
number of users, these costs usually are independent of their distance from the facilities or density of development.

2. The costs associated with the delivery of the service. Examples include the costs of sanitary sewer lines or school buses. Generally, these costs increase proportionately as distance increases. Increased residential density usually results in economies. For example, greater density allows for economies due to larger sewer pipe sizes. School bus routes are shorter if students are picked up in densely developed areas.

3. The short-run costs of actually producing the good. Like the first component, these are independent of density or distance. Only these costs are determined by actual use; for example, the cost of actually processing the sewerage once collected.

Average cost pricing results from a policy to charge everyone equally for the same service, regardless of the real cost to provide that service. For example, sewer fees set on an average basis would charge connections to homes on half-acre lots 10 miles from the treatment plant the same as homes on 5,000-square-foot lots one mile from the plant. As a result of average cost pricing, outlying developments are subsidized by other residents. Urban sprawl therefore occurs if the new development does not take account of the additional or marginal costs of providing service to it.

Traditional public finance economists advocate marginal cost pricing in the form of a three-part tariff as an alternative to average cost pricing. One part of the tariff would be a charge for the costs of the capital facility used to produce the good, such as the cost of construction of a sewer treatment plant or a school building. The charge would be a flat fee per connection or house since the charge does not vary by density or distance.

The second part of the tariff would be a charge for the costs of delivering the service, such as the cost of extending sewer lines to the house. It would essentially be a flat rate per house based on the average cost of extending the sewer line to that and other homes in the same subdivision. The longer the line and the less density, the higher the charge. Table 23-1 illustrates the variation in annual capital facility and service delivery costs between projects of different densities in Loudon County, Virginia.

The third part of the tariff would be a charge for actual use based on the short-run costs of producing the service. It would be a charge, for example, on the per-unit cost of processing sewerage. It could be based on the volume of sewerage passing out of the home and into the sewer line. More typically, it is based partly on the volume of water passing through a water meter into the home.

Planners can argue that urban sprawl would not be subsidized if public service charges were designed with the three-part tariff in mind. More distant and less dense development would only occur if its expected benefits to both developers and purchasers exceeded its additional or marginal costs to the public. Developers would not build and purchasers would not buy homes in efficient developments since the charges would price such development out of the market. In theory, the primary task of planners simply would be to determine the long-term site of central facilities. The market would then dictate appropriate land use patterns. Though this discussion is simplistic, it does convey that the beauty of marginal cost pricing is that it forces developers to take account of all the fiscal costs and benefits of
Table 23-1. Annual Capital Facility and Service Delivery Costs for 1,000 Housing Units, Different Densities, Loudon County, Virginia

<table>
<thead>
<tr>
<th>Costs that vary with density:</th>
<th>Rural</th>
<th>Rural</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>School operating costs</td>
<td>3,046</td>
<td>3,046</td>
<td>2,256</td>
<td>2,256</td>
</tr>
<tr>
<td>School transportation costs</td>
<td>187</td>
<td>153</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>Road maintenance costs</td>
<td>110</td>
<td>55</td>
<td>38</td>
<td>26</td>
</tr>
<tr>
<td>Water, sewer operating costs</td>
<td>709</td>
<td>355</td>
<td>260</td>
<td>240</td>
</tr>
<tr>
<td>Costs that do not vary with density:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public schools capital costs</td>
<td>243</td>
<td>243</td>
<td>243</td>
<td>243</td>
</tr>
<tr>
<td>Law enforcement</td>
<td>165</td>
<td>165</td>
<td>165</td>
<td>165</td>
</tr>
<tr>
<td>Fire/rescue services</td>
<td>58</td>
<td>58</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>Health/welfare services</td>
<td>295</td>
<td>295</td>
<td>295</td>
<td>295</td>
</tr>
<tr>
<td>General administration</td>
<td>147</td>
<td>147</td>
<td>147</td>
<td>147</td>
</tr>
<tr>
<td>Total Annual Costs</td>
<td>$4,960</td>
<td>$4,517</td>
<td>$3,529</td>
<td>$3,463</td>
</tr>
</tbody>
</table>

1. Prototypical communities of 1,000 units each housing 3,260 people with 1,200 students.
2. One unit per five acres.
3. One unit per one acre.
4. 2.67 units per acre.
5. 4.5 units per acre.


Development before they come to have their plans approved.

Political Resistance to Marginal Cost Pricing

If marginal cost pricing results in efficient development patterns and improves community welfare, why hasn't the method been used? Why were regulations imposed to control growth in hundreds of communities during the 1960s, 1970s, and into the 1980s if marginal cost pricing were available? The answers may be found by examining the costs and benefits of those implementing land use controls. Communities may care more about their own welfare than the welfare of society as a whole.

One reason communities choose not to employ marginal cost pricing is that they do not want to discriminate among members of the community, especially if the community is homogeneous in many respects. In many communities, for example, there is only one flat charge for residential water, no matter how far away a residence is from the supply source or how much water that residence would use. There is also a practical consideration at work here: It is rather difficult to employ differential charges to distinguish between 300 yards and 200 yards from a facility, for example. It is sometimes just as easy to charge everyone the same, especially in relatively compact communities.

More problematic is the provision of education. Not all households have children to send to schools. Public schools, however, are financed substantially by the community at large, and the local burden tends to fall on everyone through the property tax structure. The simple argument is that nearly every
household has or will send children to schools, so everyone pays for the benefits ultimately received. Other arguments are used as well. What seems to be the underlying concern, however, is that, if the marginal cost of public schools were indeed assessed to those using the service, the service would be priced out of range of users. Marginal cost pricing is not clearly cognizant of social equities.

Another reason residents might oppose marginal cost pricing of services, at least on new residential development, is that taxes on commercial and industrial enterprises subsidize residential public services. Extension of these services may mean sharing this subsidy with new residents, thereby lowering the benefit enjoyed by existing residents.

Congestion of existing public facilities caused by growth usually implies increased charges to restrict demand so as to help alleviate the congestion. Marginal cost pricing requires that all residents, both new and existing, be charged more. After all, each resident can be viewed as the marginal resident since each contributes to the total level of congestion. Marginal cost pricing may mean that not only new residents, but existing residents pay more.

Thus, if they do not choose to impose marginal cost pricing, and therefore development discipline, communities must be prepared for and respond to the inefficient growth that follows. Initially, communities facing growth would find it in their self-interest to build capital facilities needed to provide public services for the current and some of the new residents. Facilities therefore would have excess capacity. Facility capacity would not be designed with economic efficiency in mind, however. Communities rather would design facility capacities to maintain or achieve a desired scale of the future community. Residents may prefer a low-density suburban future to a high-density urban future, even in progrowth communities. This would occur if community leaders and developers are essentially of the same mind to deny future entry into the market by outside developers. Especially in rapidly growing areas, community facilities may be deliberately planned to limit growth.

In a sense, communities act like clubs. That is, communities can be viewed as economic clubs that provide services to their members or, in this case, residents (Buchanan 1965; Sandler and Tschirhart 1980). If the clublike behavior of communities results in facilities being built too small from an economic efficiency point of view, growth is limited too soon. When the excess capacity is filled, and exceeded, congestion of facilities like roads and schools occurs. Growth controls then are imposed to prevent the community from suffering declining welfare since current residents would not be compensated for their loss of welfare occasioned by increasing or overuse of certain facilities. With each new resident, marginal costs to existing residents increase. Thus, to prevent rising marginal costs occasioned by growth and insufficient facilities, additional growth may be opposed by the members of the community club regardless of the benefits to society as a whole (Blewett 1983). In this scenario, when marginal cost pricing is opposed because the club prefers to assess the same prices on all its members, future membership is consciously limited by undersizing facilities. Membership capacity in the community is reached and new people are discouraged from joining because their membership would reduce the welfare of existing members. Even if the welfare gained by new members upon join-
A Public Choice and Efficiency Argument

If self-interest rather than social welfare better explains admission behavior, then the losers, or current residents, will block development unless compensated by the winners, or new residents. Impact fees allow such compensation. In a sense, impact fees allow new residents to buy their way into the community club. Only beneficial growth will occur since the existing members will set fees for the new members. In fact, Loveland, Colorado, assesses such a buy-in fee on most development (reduced fees are assessed for low-cost housing, however).

These new member fees or impact fees, if reasonably designed can approach the efficiency of marginal cost pricing without reducing the welfare of existing members. This can be achieved if the fees include only the capital and delivery cost components of the three-part tariff discussed earlier. The capital cost component must be a flat charge assessed per housing or other unit of measure to finance the marginal or additional costs of capital facilities. The delivery cost component is based on the distance away from central facilities as well as density of development. These two charges comprise the initial impact fee as they are based on the marginal costs of the expected future use of the facilities. The variable production or operating cost component of the tariff remains assessed upon use and is not part of the impact fee. The fee is assessed prior to occupancy. If such a fee represents merely the additional costs imposed on the community by new development, then it will allow only efficient development to occur. The impact fee will approximate the effects of marginal cost pricing in that development would have to pay its way by financing the full additional cost of providing new public service facilities to development. If the net benefits of development do not exceed the public service costs, then developers will not find it in their self-interest to build. They will build only if the net benefits to them exceed the public costs represented by the impact fee.

Such an impact fee can only be efficient if properly determined and allocated. This may be impractical, if not impossible, with administrative structures currently in place. Impact fee administration will likely be somewhat inefficient, though preferred over the alternatives. Inefficiencies should result in new development paying for additional capacity that may benefit existing residents. This usually results in higher-than-efficient capital costs. Existing residents could economize on building additional capacity by restricting their use of new facilities or by building larger facilities at the start. But impact fees give them little incentive to do so. Depending on the level, therefore, impact fees may force new development to pay the community’s entire marginal cost of creating and delivering service, even though the community receives at least some benefits. Some development that would occur if true marginal cost pricing were used would not happen. Still, to many developers and community leaders, the choice is not between true marginal cost pricing and impact fees but rather between impact fees and inefficient growth controls as true marginal cost pricing is politically ruled out.
Impact Fees for Fiscal Enhancement

Communities employing development impact fees also may choose to use them to enhance their fiscal base beyond that needed simply to cover the capital facility and delivery costs associated with new development. This is accomplished when the impact fee is used to artificially reduce the volume of development, raise the unit value of all real estate in the community, and thereby enhance the fiscal base of the community. The analogy here is with growth control efforts that reduce the supply of buildable land and increase fiscal surplus to existing residents.

A community's ability to use impact fees for fiscal enhancement will depend in large part on its ability to significantly affect the total supply of buildable land in an urban area. In the case of a community that has little effect on the total supply, attempts to gain excessive revenues through fees would lower the net benefits of development and development would tend to move elsewhere. However, if a community's growth policies can have a significant effect on the total buildable land supply in an urban area, impact fees can be raised so as to maximize revenues. These higher fees also would overly restrict residential growth. By forcing development to pay more than all the marginal costs of new facilities, thereby reducing construction of new housing, the price of new housing would increase, as would the value of existing houses (if they are close substitutes). Thus, if public officials want to raise property values throughout the community and its fiscal base as well, they would increase the fee even higher so as to further restrict development. By analogy, recent empirical work on the price effects of growth management policies supports this assertion (Landis 1986).

While courts hold that impact fees are to be limited to actual costs (Stroud 1987), the reality is that there is much leeway in the setting of fees (Callies and Freilich 1986). For one thing, they are subject to projections and forecast costs that can be based on a variety of assumptions (Porter 1983). Planners have discretion as to the type of service paid out of fees. Impact fees are now used to compensate for the added burden development puts on police and fire facilities and equipment, storm and sanitary sewers, museums, libraries, parks, roads, solid waste refuse, and emergency medical facilities. Some communities even assess fees for increased space at city hall. Fees can be used to force new residents to help finance services that are already being provided to existing residents. Since the community merely has to indicate how new development may affect costs or increase the demand for service, the burden of proof is on the developer to show that such a fee is unreasonably based. And even if fees are unreasonable, the delays caused by litigation can be expensive and builders may figure that it just does not pay to fight city hall in court.

IMPROVING PLANNING EFFICIENCY

Planning is a dynamic process since planners must, among other things, anticipate future demands for different land uses and plan the siting of capital facilities. Planners essentially engage in economic forecasting. They must forecast future land use requirements that are subject to numerous economic forces. The task of forecasting long-range housing and related demands makes the task of forecasting next year's GNP look like child’s play.

What happens when these forecasts prove wrong? Here we explore how the planning process can adjust to inevitable and unanticipated
changes in economic conditions over time. The argument is that the appropriate use of impact fees can greatly increase the efficiency of the development and planning process. Fees are more than a method of compensation; they can be used to generate spontaneous adjustment in the development process so as to improve the efficiency of the urban spatial structure. In this sense, and if properly used, variations in impact fees can offer the planner a safety valve when the forecasts inevitably miss.

Suppose that market conditions change after some facilities are installed. The facilities were installed under a different economic reality. While we can change forecasts, we cannot change the public investment decisions already made. How will the current system allow adjustments? Will the system adjust by developers seeking, and receiving, zoning variances and other exemptions from planning boards? How can planners distinguish between outcomes that are in response to legitimate changes in economic conditions and those that are the result of political interference? In fact, there is little that prevents the planning process from prohibiting inefficient variances and exemptions.

Impact fees change decision making in such a way that planners can distinguish between efficient and inefficient development. Planners make initial projections as to new residential growth and plan public facilities accordingly. Some installation of facilities is undertaken. Schedules of impact fees are established to ensure that development pays its way. These schedules should provide for deviations in planned land use. If the time, location, or density of development is different from that planned, then the fees are set so there is compensation for the increased fiscal burden of alternative development. This can be accomplished by establishing an impact fee formula that varies impact fees by the time, location, and density of development. In fact, many fee systems in place today are based on these factors. It must be emphasized that the fees are not designed to punish or discourage developers who want to go against the plan. Rather, the purpose of these fees merely is to allow for efficient, fiscally responsible change.

If such a system were in place when market conditions changed, developers who want to build at levels not anticipated by planners will take all the costs and benefits into account. The fee schedule, based on a formula taking into account the timing, location, and density of development, would allow developers to consider any number of development alternatives. Only efficient growth will occur. If developers calculate incorrectly or make wrong decisions, then it is they who suffer losses of possible profits. Even if they are wrong, the impact fee schedule ensures that there will be no uncompensated external costs imposed on the community.

Much bureaucratic and political red tape thus is avoided with impact fees. The planning system is more fluid and adaptable and less subject to regulatory rigidities. If planning boards exempt a certain developer from certain fees, it will be obvious that special favors, rather than a legitimate variance resulting from changing economic conditions, are being granted. Impact fees act to minimize inefficient political interference in the planning process by making such interference more visible.

This is not administratively easy, however. For example, once a sewer system is installed, impact fees could be adjusted to cover cost as the nature of demand changes over time. Those who moved into the community earlier would not be affected by the changed impact fee. If
demand increases, the fee would have to rise to cover the cost. The more the fee is raised, however, the greater the downward pressure on demand. An administrative solution to this problem would be to charge existing residents their share of the cost burden, through variable user fees, property taxes, or another mechanism. This would probably be politically unpopular.

**IMPACT FEES AS A CONSTRUCTIVE REFORM**

Public choice theorists would not assume that there is an “invisible hand” efficiently guiding public policy decisions. Instead, planners may find that the political outcomes associated with land use regulation seem to be guided by an “invisible foot” that is as likely to make matters worse as better. To help rid us of this invisible foot, we need what recent Nobel laureate James M. Buchanan refers to as a constructive reform (1986). A constructive reform of an institution changes the way decisions are made rather than changing personnel. Past calls for reform often failed to alter radically the planning process, despite claims to the contrary (e.g., Cutler, 1979). Calls for better-educated planners, more coordination, more careful planning, and so forth may be desirable changes, but they do not constitute real institutional reform. They merely strive to use the same institution more efficiently without altering basic behavior. They do not address the incentives that contribute to decisions being less than the best.

Impact fees are an example of a constructive reform in planning. They are an institutional reform that changes the incentives faced by participants deciding issues of urban residential growth. A sort of safety valve is provided that improves the dynamic efficiency of planning by allowing planning to adjust better to unforeseen changes in economic conditions. Impact fees force developers to take account of the fiscal costs, not just the benefits, of residential growth. There is no divergence between those who make a decision and those who bear the burdens of the decision. This is not only equitable but also allows impact fees to approach the efficiency of marginal cost user charges. All economically efficient growth is allowed, and inefficient growth is priced out of the market by the fees. Impact fees also lack the pecuniary costs that marginal cost pricing imposes on current residents. Fees protect current residents but allow new residents to buy into the community and its public services. Only mutually beneficial development occurs. Planning is more adaptable and less subject to regulatory rigidity. Political interference is minimized because it is more visible.

Some properties may be lost if impact fees are imposed in a municipality that can significantly affect the supply of developable land in an area. In this case impact fees will tend to overly restrict residential growth. However, further study is needed before it can be concluded that impact fees are any worse than other land use controls under similar market conditions.

**Notes**

1. For an excellent and more thorough explanation of the costs of local public services and a practical system of marginal cost user charges see Downing (1977a).
2. Downing (1977b) maintains that a properly designed system of marginal cost user charges will overcome such political opposition. However, his analysis ignores the short-run adjustment problems addressed here.
3. Some critics of zoning and land use regulation do not seem to appreciate some of the dynamics of planning public infrastructure (e.g., Siegan, 1983; Fischel, 1985). They view regulation in a static framework and provide an analysis of how better specification of property rights
can avoid nuisances associated with conflicting land uses. However, the transactions costs become very large when dealing with public goods across time periods. While many insights of the property rights approach are significant, planners have been needlessly alienated by those critics. Planners must deal with problems the economists do not address and still operate within the basic institutional structure of zoning.

References