

# **Multi-Family Housing and Proportionate-Share Impact Fees**

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# Multifamily Housing and Proportionate-Share Impact Fees

## Executive Summary

This report for the National Apartment Association advocates the consideration of methodological approaches that assure proportionate-share impact fee assessments on multifamily residential units. It **finds** that the current state of practice often falls short in achieving proportionate share impact fee assessments with the result that multifamily, or apartment, units are charged more than their impact on public facilities.

**Why should citizens and public officials care that impact fees may disadvantage certain types of development? This report argues that a “one size fits all” methodology for impact fees on residential real estate development falls heavier on the very type of development—more compact, multifamily development—that uses local facilities and infrastructure most efficiently and thus has a substantially lesser “impact” on those public facilities.**

In one case, for example, **the report finds** that, whereas multifamily units are charged on the basis of 0.31 school children per unit – the countywide average for all residential units regardless of type – census data show that such units generate only 0.12 students on average. To be proportionate to impact, the impact fee in that county should be \$2,057 per unit and not the \$5,443 that is actually assessed; and impact fees for single-family detached units should be \$6,357. In other words, multi-family units are being assessed for more than their proportionate impact on schools while single-family detached units are being charged less.

Fortunately, few communities were found to have such egregious impact fee assessment practices, although for most of them significant improvements could be made in advancing proportionate share impact fee assessments on multifamily units.

Data for this study came from an in-depth analysis of 67 impact fee technical reports drawn from across the nation and prepared by a wide variety of consultants. Although not a scientific study – in large part because there are no reliable sources of information about the extent to which impact fees are used nationally, thereby rendering scientific survey design problematic – it led to important insights to guide the design of future impact fee programs.

This report advocates that impact fees for all residential developments and especially for multifamily developments be based on type of unit, size of unit, urbanization factors such as density and accessibility to transit, and configuration. It also advocates for improved consideration of credit against impact fees based on revenues generated by new development. Finally, this report calls for modest changes to state- enabling legislation to assure that impact fees are based on proportionate share principles, and includes specific ways in which representatives of apartment interests may further these changes in their local communities.

## INTRODUCTION AND CONTEXT

Over the past generation, the federal government has reduced its financial support for a wide range of local public facilities. States have been reluctant to fill the gap and have left local governments to their own devices to meet growing infrastructure needs. Declining federal and state funding however have not deterred them from increasing standards especially in the areas of environmental protection, transportation, and education – but without the new revenues needed to meet those new mandates. Locally elected officials have been reluctant to advocate higher taxes in part to help finance new or expanded facilities needed to accommodate the demands associated with new development. In most states, property and sales tax limitations make raising local taxes difficult. Caught among declining federal and state revenue, increasing standards, and tax limitations, local governments have had to consider a wide range of alternatives such as deferring infrastructure maintenance, degrading the level of service delivered to the public (such as higher student-teacher ratios, more congested roads, and restricted library and recreation facility hours), imposing user fees and raising fees that already exist, and turning to “innovative” revenue sources.

One innovative source of revenue are *impact fees*, which have been enabled in 25 states and used in many others without explicit state enabling legislation – Florida being the leading example. Impact fees are one-time assessments on new development to help finance facilities needed to accommodate the development. At its heart, impact fees are based on a proportionate-share calculation that apportions facility impact with respect to units of demand. For residential development, “units” of demand are commonly occupants per unit for such facilities as parks and libraries, public school students per unit for school facilities, and trip-miles for road facilities. Impact fees are an attempt to gauge the impact of new development on the local infrastructure. Unfortunately some public officials employ a “one size fits all” methodology to residential real estate impact fees, with the result that multifamily housing—which is a much more efficient user of public facilities—will usually bear a disproportionately higher fee than single family detached housing. This methodology undercuts developers’ ability to produce apartment homes affordable to the broadest range of households.

If indeed impact fees can be unfair to certain types of development, why should anyone care enough to do something about it? First, one should care because all residential real estate development is not the same with regard to its impact on the local economy. One hundred units of detached, single family houses have far more of an “impact” on public facilities (roads, sewer, trash removal, etc.), create more car trips per household, and place far more children in schools than do 100 apartment units—not to mention the significant difference in green space consumed by these two types of development. A March 2004 Brookings Institution study examined the impact of lower density, sprawling development (characterized by detached, single family houses) and higher density, multifamily housing on local and regional economies.<sup>1</sup> The Brookings study found that

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<sup>1</sup> “Investing in a Better Future: A Review of the Fiscal and Competitive Advantages of Smarter Growth Development Plans”, Brookings Institution (Washington, DC).

the lower density, sprawling development is consistently a money loser for the municipality, costing more than the revenues it creates and placing a drain on the local economy. Higher density development, in contrast because by nature apartments place less of a strain on the local infrastructure, was found to be an economic plus for both the local and regional economies. Taking these differences into consideration should produce more equitable impact fees for developers of multi-family units.

Second, consider that multi-family housing is often a community’s primary source of affordable homes for its key workers who do not receive federal subsidies for their housing: teachers, hospital workers, fire fighters, and police. If impact fees do not recognize differences in proportionate share impacts between residential units the effect can be a reduction in housing available to these workers.

Consider the case of a Florida county to illustrate the point. In 2005, this county charged the following:

**Table 1. Impact Fee Schedule for Subject County, 2005**

<i>Facility</i>	<i>Detached</i>	<i>Townhouse - Condominium</i>	<i>Apartment</i>
Fire + Parks	\$813	\$813	\$813
Schools	\$5,443	\$5,443	\$5,443

*Source:* Adopted fee schedule for the subject county. Fire protection and park impact fees are combined in this example because they are both based on average occupancy per dwelling unit regardless of type or size.

Notice that fees are the same across all unit types. This is because the county based its impact fees on the average occupancy of all residential units regardless of type or size – being 2.38 people based on the 2000 census. However, the census’ Public Use Microdata Survey shows something different: Persons per unit and per bedroom vary by type of unit:

**Table 2. Persons and Public School Students Per Unit by Unit Type, 2000**

<i>Unit Type</i>	<i>Persons Per Unit</i>	<i>Students Per Unit</i>
Detached	2.44	0.36
Townhouse	1.98	0.20
Multi-Family	1.81	0.12
Average of all	2.38	0.31

*Source:* Calculated by the author for the subject county from Public Use Microdata Survey (5% sample), US Census, 2000. Detached includes manufactured homes.

The implication of this is that multi-family units are assessed 24% more than their proportionate share impact on those facilities in this county. To be proportionate, Table 3 shows impact fees that this county should assess

**Table 3. Proportionate-Share Impact Fees Based on Type of Unit**

<b>Unit Type</b>	<b>Impact Fees for all facilities</b>
Detached	\$7,190
Attached	\$4,201
Multi-Family	\$2,677
Average of all	\$6,256

*Source:* Calculated by the author for the subject county.

This report explores several ways in which impact fee practice may be refined to improve proportionality. This is done in the following sections:

- The Principle of Proportionality
- Proportionality by Size of Unit
- Proportionality by Level of Urbanization
- Proportionality by Configuration
- Broadening the Base to Improve Proportionality
- Properly Crediting Other Revenues
- Clarifying “Proportionality” in Statutes
- Summary and Guidance

Several appendices are included, including:

- A – Impact fee basics
- B – The content analysis for 67 impact fee technical reports reviewed for this report
- C – A compendium of “better practices” compared to “questionable practices” that illustrates the effect of improved proportionality on impact fee assessments with special reference to multi-family housing
- D – Proposed refinements to methodologies using data that for the most part are readily available
- E – A review of parity in impact fees between communities
- F – Data for local application
- G – Alternative facility financing options

## 1. THE PRINCIPLE OF PROPORTIONALITY

This report advocates using proportionality to calculate impact fees for all residential dwelling units with special reference to multi-family units. In many applications, this will mean that impact fees for multi-family units may go down while those for detached units may go up. The concept of proportionality is rooted in legal and economic principles in important ways.

At its core, proportionality has a strong connection to the Fourteenth Amendment to the U.S. Constitution, which reads in relevant part: “no state shall ... deny to any *person* within its jurisdiction the *equal* protection of the laws.” While a legal treatise will not be advanced, the relevant point here is that equal protection applies to *persons* and that in the context of impact fees, persons should be treated *equally*. This is consistent with economists’ concept of *horizontal equity* that means “*people* in *equal* positions should be treated equally”.<sup>2</sup> There would seem to be a close link between the economic and constitutional principle that where differences exist among people in different positions, those differences would need to be recognized.

In the context of applying impact fees to residential development one could attempt to argue that using the average household size for all residential units assures equal treatment of all units. This reasoning, however, does not assure equal treatment of persons because when the average number of persons varies by type of residential unit, and by size, persons in residential units with fewer persons per unit would be paying a higher and unequal amount relative to persons in residential units with more persons per unit. By analogy, Internal Revenue Code varies the standard deduction by the number of dependents supported by a head of household – the larger the number of dependents the higher the deduction.

A final consideration relates to impact fees and taxes. Impact fees are justified legally as a means by which the impact of new development on public facilities is mitigated by assessments that reflect the proportionate-share impact by that development. For residential development, this would seem to require assessments based on the size of unit for reasons that will be reviewed next.

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<sup>2</sup> Harvey S. Rosen, *Public Finance* (third edition), Irwin (Homewood, IL), 1999, p 323, emphasis added.

## 2. PROPORTIONALITY BASED ON SIZE

Defining proportionality based on size of unit is not new; indeed, the principal dates from before the landmark publication, *Fiscal Impact Handbook*<sup>3</sup> which characterized the “per capita multiplier method” for fiscal impact assessment purposes. The authors showed that correct fiscal impact assessments are based on the average occupancy by type of unit (usually detached, townhouse, multi-family, and manufactured home) and by size (usually bedrooms).

Establishing proportionality based on the per capital multiplier method is not difficult to do. Readily available data exist from the census to do this. This report includes per capita multiplier coefficients for all Public Use Microdata Areas (PUMAs) and states in Appendix F.<sup>4</sup> PUMAs are geographic areas in units of about 100,000 residents and provide data to establish proportionality between residential unit types and sizes (based on bedrooms). Persons and public school students per unit and per bedroom based on type of residential unit is shown in the following table.

**Table 4. US Average Occupancy and Public School Students Based on Unit Type and Size in Bedrooms, 2000**

<b>Unit Type</b>	<b>Persons Per Unit</b>	<b>Persons Per Bedroom</b>	<b>Public School Students Per Unit</b>	<b>Public School Students Per Bedroom</b>
Detached	2.77	0.99	0.50	0.17
Townhouse/Condominium	2.76	1.25	0.42	0.15
Multi-Family	1.73	1.07	0.30	0.13
Manufactured Home	2.66	1.01	0.49	0.16

*Source:* Calculated by author for subject county based on Public Use Microdata Sample (5-percent sample), Census 2000.

There is an important limitation with using bedrooms, however. Not all building codes define “bedrooms” in the same way and what is posed by a builder as a “den” or “sewing room” or “media center” may in fact be used easily as a bedroom during the life of the home. Fortunately, this is solved easily by calculating the number of persons and public school students per 1,000 square feet, then assessing impact fees on the basis of size in square feet.

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<sup>3</sup> David Listokin and Robert Burchell, *Fiscal Impact Handbook*, Center for Urban Policy Research (New Brunswick, NJ: Rutgers University), 1988.

<sup>4</sup> PUMA maps can be found for each state at [http://www.census.gov/geo/www/maps/sup\\_puma.htm](http://www.census.gov/geo/www/maps/sup_puma.htm).

This simple yet equitable approach to calculating impact fees is based on several studies undertaken by the author and others showing a general pattern that persons per 1,000 square feet do not vary much by type of unit within a jurisdiction. Table 5 summarizes results from five such studies. While variations exist in occupancy levels between types of units such may be considered di minimus. Exactions such as impact fees need only meet the principle of “rough” proportionality so focusing on precise differences in levels of occupancy between types of units should not be necessary. All that should be necessary is calculating the overall figure of persons per 1,000 square feet for the jurisdiction for which impact fees may be assessed.

**Table 5. Persons Per 1,000 Square Feet for Sample of Counties**

<b>County</b>	<b>SF Detached</b>	<b>SF Attached</b>	<b>Apartment / Condo</b>	<b>Sample Average</b>
Brevard FL	1.5	1.4	1.4	1.4
Collier FL	1.2	1.1	1.2	1.2
DeKalb GA	1.4	1.3	1.3	1.3
Douglas CO	1.4	1.3	1.6	1.4
Stafford VA	1.4	1.6	1.4	1.4

*Source:* Compendium of studies conducted by author.

For any given jurisdiction, the relevant calculation should be as follows:

$$\left( \frac{\text{Total Residents or Total Public School Students}}{\text{Total Residential Heated Space}} \right) * 1,000$$

where:

*Total Residents or Public School Students* is either the most recent census or a current estimate

*Total Residential Heated Space* is the sum of residential space based on property assessor records for same year of the residential estimate<sup>5</sup>

The multiplier *1,000* provides a figure for persons or public school students per 1,000 square feet of heated area (see Table 5 for example).

The impact fee itself would be calculated on the basis of the number of heated square feet of the new unit being constructed.

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<sup>5</sup> If the 2000 census is used, then the denominator should be the sum of total residential heated space constructed 2000 or earlier based on assessor records.

The conclusion may be drawn that impact fees based on the per capita multiplier approach using persons per 1,000 square feet and assessed on a per square foot basis may achieve equity and advance proportionate-share principles better than alternative calculation approaches. For such facilities as schools, libraries, and parks and recreation centers, the per capita multiplier can lead to proportionate-share impact fee calculations across the jurisdiction because the quality of service delivered probably does not vary much based on such factors as density, location, and configuration. For other facilities, however, these additional factors may need to be considered, which is the subject of the next few sections.

### 3. PROPORTIONALITY BY LEVEL OF URBANIZATION

As numerous studies have shown, the extent to which an area is urbanized influences fiscal costs, especially in terms of public facilities.<sup>6</sup> Generally, costs per unit of development and person go down with respect to increasing density. Density is important especially when considering transportation, utility<sup>7</sup>, and public safety facilities.

Federal data on transportation may be used to adjust road impact fees in many circumstances. Table 6 shows the relationship between density (at the census tract level) and use of the private vehicle in the journey-to-work. Although automobile use dominates in all density categories, it falls considerably above 6,000 housing units per square mile. This table also shows the percentage adjustment from the mean for all density categories. To the extent that the trip generation<sup>8</sup> figures reflect roughly the national mean, these percentage adjustments may be used to change road impact fees for all residential units within the respective density categories. Local conditions may need to be considered in making adjustments but the point is made that density appears to influence travel behavior in this respect by reducing use of private vehicles in the journey-to-work.

**Table 6. Mode Choice by Driver in Journey-to-Work by Density, 2001**

<b>Housing Units Per Square Mile</b>	<b>Private Motor Vehicle</b>	<b>Trip Adjustment Factor</b>
50 – 250	90.3	104.5%
250 - 1,000	90	104.2%
1,000 - 3,000	87.8	101.6%
4,000 - 6,000	82.2	95.1%
6,000+	61.7	71.4%
All	86.4	100.0%

*Source: Nationwide Household Transportation Study 2001, calculated by author.*

The extent to which an area is urbanized relates also to the presence of mode choices. For example, in Arlington County, Virginia, 47 percent of the workforce commutes via transit and 73 percent of them walk to transit stations – yet its density is only half that of Los Angeles (where transit ridership is less than Arlington’s). Studies have shown that dwelling units within one-half mile of transit stations have about 60 percent fewer automobiles than their metropolitan area averages. Others have shown that rail transit ridership ranges 25% to 50% of workers living within ¼ mile of stations and half that

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<sup>6</sup> Robert Burchell et. al, *Sprawl Costs: Economic Impacts of Unchecked Development*, Island Press (Washington, DC), 2005. See also Robert Burchell et al., *Costs of Sprawl 2000*, National Transit Cooperative Research Program, Transportation Research Board (Washington, DC), 2000.

<sup>7</sup> Water, wastewater, and stormwater facilities.

<sup>8</sup> See Institute for Transportation Engineers, *Trip Generation* (seventh edition (Washington, DC), 2003.

between ¼ and ½ mile within some indicating that use of bus transit ranges from 15% to 30% for workers living within ¼ mile of the bus line and about half that between ¼ and ½ mile.<sup>9</sup> These are localized considerations that should be taken into account in calculating road impact fees. As a starting point, many local Metropolitan Planning Organizations are likely to have data that may differentiate road impacts by residential type and perhaps size, especially those with significant public transit systems.

Urbanization also affects the distribution and cost of public safety facilities, even in smaller urban and rural areas. For example, impact fee analysis for Missoula, MT, resulted in creating three separate fire facility service areas: 1) City of Missoula, 2) Missoula Rural Fire District and 3) Frenchtown Fire District. Each service area had the same level of service standard, about 5-8 minute response time, with the result that lower densities required more facilities and equipment per residential unit served. Fire District personnel determined proportionate-share factors for residential and nonresidential development by analyzing calls for service data by geographic service area. Residential proportionate-share factors and the proposed impact fees per attached housing unit are summarized in the table below. Such analysis would need to be done on a case-by-case basis but one would suppose that Missoula establishes a reasonable example.

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<sup>9</sup> Studies referred to in this section include R. Ewing, *Pedestrian and Transit-Friendly Design* (March 1996), at 8-9; Cervero & Kockelman, "Travel Demand and the 3Ds: Density, Diversity, and Design, *Transportation Resource-D*, Vol. 2, No. 3 (1997); Moudon & Hess, et al., *Effects Of Site Design On Pedestrian Travel In Mixed-Use, Medium-Density Environments* (May 1997, Report No. WA-RD 432.1); *Pedestrian Facilities Guidebook: Incorporating Pedestrians Into Washington's Transportation System* (September 1997); 1000 Friends of Oregon, *Making Land Use Transportation Air Quality Connections, The Pedestrian Environment*, Vol. 4A (Dec. 1993)(at [www.bts.gov/ntl/docs/tped.html](http://www.bts.gov/ntl/docs/tped.html)); Crane, "Cars and Drivers in the New Suburbs: Linking Access to Travel in Neotraditional Planning," 62 *APA Journal* 51 (Winter 1996); Cervero, "Land-Use Mixing and Suburban Mobility," *Transportation Quarterly*; Colorado/Wyoming Section Technical Committee, "Trip Generation for Mixed Use Developments," *ITE Journal* 57, 2 (1987): 27- 32); American Society of Civil Engineers, *Traditional Neighborhood Development-Will the Traffic Work?* (ASCE 1990); Bookout, "Neotraditional Town Planning: Cars, Pedestrians & Transit," *Urban Land* (Feb. 1992), at 10, 15); Friedman, Gordon & Peers, "Effect of Neotraditional Neighborhood Design on Travel Characteristics," *Transportation Research Record* 1466: 63-70 (1993); Holtzclaw, *Explaining Density and Transit Impacts on Land Use* (Presented by NRDC and Sierra Club to the State of California Energy Resources Conservation and Development Commission, April 19, 1990); Kitamura, Ryuichi, Mokhtarian & Laidet, *A Micro -Analysis TND Code § 5.07, Land Development Code of Land Use and Travel in Five Neighborhoods in the San Francisco Bay Area* (Institute of Transportation Studies, University of California at Davis, Nov. 1994).

<sup>9</sup> For purposes of computing the percentages, one dwelling unit or 800 square feet of non-residential space shall equal one (1) equivalent dwelling unit.

**Table 7. Density-Related Fire Facility Costs, Missoula, MT**

<i>Fire District Service Area</i>	<i>Urban Development Pattern</i>	<i>Impact Fee per Dwelling Unit</i>
Missoula City	Urban	\$91
Missoula Rural	Suburban	\$363
Frenchtown	Rural	\$1,354

*Source:* Tischler-Bise & Associates

Utility impacts are also affected by levels of urbanization. In Scottsdale, AZ, for example, residential development fees are imposed per housing unit by type of unit, based on six density categories. Utility demand by type of land use was determined using local water consumption records and wastewater flow data. The impact fee calculations use demand multipliers expressed in average day gallons. Water demand for the low density residential units, at one house per 2.5 acres, was determined using billing records for all large lot customers. Water demand for the remaining land use categories was determined by a sampling of water customers in each residential density category and in both service areas, for the years 1991 through 1994. As shown below, Scottsdale imposes density-related impact fees for water, water resources and wastewater facilities.

**Table 8. Density-Related Water and Wastewater Facility Costs, Scottsdale, AZ**

<i>Planning Zone A</i>	<i>Water System</i>	<i>Water Resources</i>	<i>Wastewater System</i>	<i>Total</i>
<i>Residential Density</i>		<i>Per Residential Unit</i>		
1 du/2.5 ac	\$2,705	\$1,934	\$853	\$5,492
1 du/ac	\$1,489	\$1,065	\$828	\$3,382
2-4 du/ac unclustered	\$834	\$596	\$773	\$2,203
2-4 du/ac clustered	\$600	\$429	\$773	\$1,802
4-8 du/ac	\$531	\$380	\$674	\$1,585
9+ du/ac	\$452	\$323	\$562	\$1,337

*Source:* TischlerBise & Associates. Figures for Planning Zone A service area; figures comparable for the second service area.

Adjusting impact fees to account for differences in urbanization, especially density, is something most impact fee analysts do not do. As illustrated by these examples, however, it is probably not as difficult as one may assume, especially when local officials can use and interpret data they probably already have.

#### 4. PROPORTIONALITY BY CONFIGURATION

Mixed uses and, better still, master-planned mixed-use developments, can reduce automobile use substantially. For example, while in a typical single-use office/business park walking trips may account for 3% to 8% of all mid-day trips, that figure rises to 20% to 30% when other uses are accessible such as shopping, and personal and financial services.<sup>10</sup>

Even greater gains may be made when new community design combines compact development (even in the suburbs), mixed uses, connectivity, and networks of pedestrian and bicycle pathways. Modern neo-traditional or new urbanism designs reduce trip lengths and induce non-vehicular use for short trips, especially if also served by transit. Studies in California have shown that when compared to conventional suburban subdivisions with single or few uses, curvilinear streets, and cul-de-sacs, modern new community design can reduce road impacts by up to half.<sup>11</sup> These adjustments would need to be made on a case by case basis.

Numerous examples exist but have not been codified into impact fee studies. The example of the City of Miami is instructive. Since 2000, there has been a construction boom within Miami where 17,000 housing units were permitted in the last five years. Approximately 95% of these units are high-rise structures constructed on infill vacant lots or more intense redevelopment of older structures. Because Miami is horizontally built out, with all new development going upward, the amount of impervious surface is not increasing along with construction activity. In recognition of this, the City is considering repealing its stormwater impact fee, which is based on the increase in impervious surface.

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<sup>10</sup> See Reid Ewing, *Best Development Practices*, American Planning Association (Chicago, IL), 1996.

<sup>11</sup> Robert Cervero, "Land-Use Mixing and Suburban Mobility," *Transportation Quarterly*; Kitamura, Ryuichi, Mokhtarian & Laidet, *A Micro-Analysis of Land Use and Travel in Five Neighborhoods in the San Francisco Bay Area* (Institute of Transportation Studies, University of California at Davis, Nov. 1994).

## 5. BROADENING THE BASE TO ADVANCE PROPORTIONALITY

The principle of proportionality may need to be viewed in a very different way as it applies to some facilities. For instance, nearly all park and recreation, and library impact fees are charged only to residential development and, except for California, all school facility costs are assigned to residential development. The concern is that assigning the entire burden to residential development for these facilities may be incorrect. For example, school impact is created when new students are added to the system but what attracts the families whose children impact the schools: Probably the jobs that brought them to the region or community. Consider that, on average, each household generates about 0.50 school children and about 1.5 jobs or a ratio of 0.33 school children per job. If a business adds 150 new jobs and families taking those jobs move in from outside, they will bring with them those 50 new school children. Where should the impact be assigned? The answer is probably the source of the new jobs. This logic extends to parks and recreation, and library facilities as well.

On the other hand, impact fees need to generate a benefit back to those paying the fee. It is easy to see where families benefit in the case of parks, libraries, and schools, but the link may need to be made with respect to the benefit received by nonresidential development. Atlanta, GA, was able to do this for parks and recreation facilities by collecting information on which kinds of organizations reserved such facilities over the course of a year, shown in the next table. Based on this information, the city justified adding nonresidential development to the base for calculating impact fees, thereby reducing by half or more the impact fees that might have been assessed on residential development.

**Table 9. Business Reservations of Park and Recreation Facilities**

<b>Facility</b>	<b>Total Days Reserved</b>	<b>Percent Reserved by Business</b>
Ballfields	1,179	96%
Picnic Facilities	182	60%

*Source:* James Duncan & Associates.

Analysis may justify broadening the base of library impact fee assessments as well. Regarding schools, however, it would seem that one could argue that an educated work force benefits nonresidential land uses per se and without schools this would be difficult to achieve.<sup>12</sup>

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<sup>12</sup> See Douglass B. Lee, "Evaluation of Impact Fees Against Public Finance Criteria" In Arthur C. Nelson, ed., *Development Impact Fees: Policy Rationale, Practice, Theory and Issues*, pp. 290-312, American Planning Association (Chicago), 1988.

## 6. ASSURING CREDITS ACHIEVE PROPORTIONALITY

Impact fees must consider the extent to which new development may have already helped finance or will help finance part of the very facilities for which impact fees are to be assessed. These are called “credits” and they come in three forms: external, revenue, and in-kind – the latter two of special interest to multi-family development.

External credit occurs when a non-local government entity provides grants or other resources to acquire facilities for which impact fees are assessed and for which new development does not contribute revenues. Federal and state grants for parks would be an example. In this case, it is common to subtract the value of external resources from the cost of park facilities. The “net” cost becomes the basis for calculating the impact fee.

Revenue credit is given when new development generates new tax (property, sales, other) revenue that is reasonably linked to financing the same facilities for which impact fees are assessed. Suppose a general obligation bond has been issued that borrows money to buy park land, and suppose there is also an impact fee to help pay for parks. New development contributes to the property tax base and logically a share of this new revenue helps retire the bond. The value of the stream of such new property tax revenue would be discounted over usually 20 to 25 years at usually about 4 - 6% (roughly the average long-term Treasury rate). To avoid the complication of estimating this revenue credit for each individual development project, the estimated value of all new development over a 20 to 25 year period is used to estimate the value of the credit.

Care must be given to account for revenue credit. For example, while the “subject county” reviewed earlier gives revenue credit reflecting new property taxes generated by new development to help pay for new schools, in fact it only accounts for about half the credit that should be due. In that particular situation, all property is assessed a 2-mill levy that is used to help finance new school construction. The property tax is assessed on all development, including all new development, yet only the value of new residential construction is given revenue credit. The calculation is generally as follows, although technical steps are simplified and rounded numbers used to illustrate the point:

\$23,000	cost per student station
<u>(\$ 5,000)</u>	present (discounted) value of new residential development, 25 years @ 4.5%
\$18,000	net cost per student station
<u>0.30</u>	students per residential unit
\$5,400	impact fee per residential unit

However, it is not just new residential development that contributes to the 2-mill property tax dedicated to school expansion, it is *all* new development. If the value of all new development were included in the calculation, the fee would become:

\$23,000	cost per student station
<u>(\$10,000)</u>	present (discounted) value of all new development, 25 years @ 4.5%
\$13,000	net cost per student station
<u>0.30</u>	students per residential unit
\$3,900	impact fee per residential unit

or about 30% less.<sup>13</sup>

The last source of credit – in-kind credit – is at once obvious and complex. Obviously, if a new development constructs a facility which would have been financed from impact fees, the value of this in-kind contribution should be credited against the fee, and usually is if the facility is on the list of those to be financed in part by impact fees. An example would be a park programmed for impact-fee financing which is constructed by a new development as part of its amenity package; a credit for the value of the construction and land (if it is also included) would be appropriate.

The more complex situation arises when a new development installs facilities on-site that reduce demand for off-site facilities financed from impact fees. A common example is with parks, often constructed within master-planned communities. An argument can be made that if the park reduces demand for public parks generally the developer should receive a reduction or “credit” of the impact fee for it. The question though is whether the actual demand for publicly-provided park facilities is really reduced. Moreover, if the park was never on the list of improvements to be financed from impact fees, the question is whether any credit should be given. If credit is given, then some parks anticipated for impact-fee financing will not be built because of credit given for a private park inaccessible to the public. One simple solution is as follows: If the proposed park is not on the list of impact-fee improvements but will clearly alleviate park demand, the developer may request that it be put on the list and be credited accordingly by providing it. To “rebalance” the CIP, however, parks on the list that may not be needed because of the addition may need to be removed.

In review, proportionate-share impact fees need to include appropriate crediting for external, revenue, and in-kind credit. Revenue credits may often be understated and impact fee methodologies need to be refined to include their full effect.

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<sup>13</sup> This very issue was raised in *Florida Home Builders Association v. Osceola County, Florida* (2005) in which the county did not credit new development for the new taxes it generates that state law dedicates in part to new construction. Although the court initially sided with the county, on rehearing it concluded the county needed to calculate such credits and reduce impact fees accordingly.

## 7. CLARIFYING “PROPORTIONALITY” IN STATUTES

As shown in Table 12, 25 states have impact fee enabling acts. They differ, however, in how they give guidance to local governments on crafting impact fees.

**Table 12. State Impact Fee Enabling Acts**

State	Year	Citation
Arizona	1988	Ariz. Rev. Stat. Ann., § 9463.05 (cities), § 111102 et seq. (counties)
Arkansas	2003	Arkansas Code, § 1456103 (cities only)
California	1989	Cal. Gov't Code, § 66000 et seq. (mitigation fee act); § 66477 (Quimby Act for park dedication/fee-in-lieu); § 17620 et. seq. (school fees)
Colorado	2001	Colo. Rev. Stat., § 2920104.5; § 291801804 (earmarking requirements); § 2254102 (school fee prohibition)
Georgia	1990	Ga. Code Ann., § 36711 et seq.
Hawaii	1992	Haw. Rev. Stat., § 46141 et seq.
Idaho	1992	Idaho Code, § 678201 et seq.
Illinois	1987	605 Ill. Comp. Stat. Ann., § 5/5901 et seq.
Indiana	1991	Ind. Code Ann., § 36741300 et seq.
Maine	1988	Me. Rev. State . Ann., Title 30A, § 4354
Nevada	1989	Nev. Rev. Stat., § 278B
New Hampshire	1991	N.H. Rev. Stat. Ann., § 674:21
New Jersey	1989	N.J. Perm. Stat., § 27:1C1 et seq.; § 40:55D42
New Mexico	1993	New Mexico Stat. Ann., § 581 et seq.
Oregon	1991	Or. Rev. State, § 223.297 et seq.
Pennsylvania	1990	Pa. Stat. Ann., Title 53, § 10502A et seq.
Rhode Island	2000	General Laws of Rhode Island , §4522.4
South Carolina	1999	Code of Laws of S.C., § 61910 et seq.
Texas	1987	Tex. Local Gov't Code Ann., Title 12, § 395.001 et seq.
Utah	1995	Utah Code, § 1136101 et. seq.
Vermont	1989	Vt. Stat. Ann., Title 24, § 5200 et seq.
Virginia	1990	Va. Code Ann., § 15.22317 et seq.
Washington	1991	Wash. Rev. Code Ann., § 82.02.050 et seq.
West Virginia	1990	W. Va. Code, § 7201 et seq.
Wisconsin	1993	Wis. Stats., § 66.0617

*Note:* State abbreviations based on annotation custom of each state.

A review of statutes indicates that just 11 mention the term proportion or proportionality or proportionate share (California, Georgia, Hawaii, Idaho, Illinois, New Mexico, Pennsylvania, South Carolina, Utah, Vermont and West Virginia). While some may use the term “pro-rata” in guiding calculations most of the others simply require a reasonable relationship between the impact and the fees assessed. Virtually all statutes using the term proportionate share followed Georgia’s lead. Review of how it characterizes and defines proportionate share is instructive:

### **Georgia**

#### **36-71-1.**

(b) . . . It is the intent of this chapter to:

(4) Ensure that new growth and development is required to pay no more than its *proportionate share* of the cost of public facilities needed to serve new growth and development . . . . (Emphasis added)

#### **36-71-2.**

(15) '*Proportionate share*' means that portion of the cost of system improvements which is reasonably related to the service demands and needs of the project. (Emphasis added.)

Many state enabling acts do not define proportionality or proportionate share and those that do are not any more definitive than Georgia’s. Moreover, while most states require impact fee service areas (see Appendix A for discussion), virtually none give guidance with respect to urbanization (density) considerations discussed earlier. For example, if a service area encompasses an entire jurisdiction and if the jurisdiction is large (such as a county), the potential exists that development closer-in (where apartments may locate) would subsidize development occurring farther away. Suppose a jurisdiction’s water and wastewater system has sufficient capacity to serve new development in an area that has all facilities needed to accommodate future development, but at the fringe few facilities exist. The situation can arise that new development locating where facilities already exist could have its impact fee revenue used to construct new facilities to accommodate new development at the fringe. Some statutory guidance could help clarify the design of service areas in this important respect.

A detailed state-by-state assessment of how terms may be modified or definitions clarified to advance proportionate share impact fees is beyond the scope of this project and is probably the purview of legal counsel in any event. However, some guidance is offered to advance proportionality in residential impact fee assessments through modest and perhaps merely minor adjustments to existing statutory language. Some examples are:

Where the terms “pro rata”, “reasonable relationship”, “proportionate share” and the like are used, amend relevant statutory provisions to provide or alter definitions adding language to the effect that:

*In the context of residential development, this shall mean considering assessing impact fees on the basis of size of such development measured as heated square feet based on an estimate of the number of occupants per 1,000 heated square feet of the unit.*

The definition of “service area” in statutes may also be modified to address the extent to which an area is urbanized. Most statutes require that service areas be designed based on engineering and planning principles with little if any further elaboration. Such statutes might be amended to insert language to the effect that:

*As further guidance, service areas shall be designed to reflect substantial differences based on current and/or future density, pattern of development, availability of facilities unique to parts of the jurisdiction, and physical features.*

Density and pattern of development were used in the Missoula and Scottsdale examples noted earlier. Providing for “facilities unique to parts of the jurisdiction” provides for having service areas based on the presence or absence of public transit and perhaps certain kinds of utilities. This should not be meant to preclude the use of geographically large service areas (which facilitate administrative efficiencies) so long as differences within them may be recognized, such as reducing road impact fees near transit facilities recognizing higher propensity of transit use accordingly. Atlanta, Georgia, for example, gives a 25% discount for development located within 1,000 feet of a transit station.

Virtually all statutes require allowance for specialized impact studies which would allow consideration of reduced impacts associated with configuration. Nonetheless, at some place in such statutes – such as the definition of impact fees or the specialized study section or other location – language considering configuration could be included such as:

*(Cities, counties, local governments) are encouraged to include in their fee schedules special classes of development that by their nature reduce impact and thereby reduce impact fees that would otherwise be assessed.*

Finally, it may be possible to amend enabling legislation to establish certain findings that could broaden the base of impact fee assessments, especially for parks and recreation, library, and school facilities. At a relevant point in the statute, language may be added to the effect that:<sup>14</sup>

*It is found that, unless demonstrated to the contrary, all facilities for which impact fees are enabled for assessment, collection, and expenditure pursuant to this act benefit all development and thus all development shall be subject to impact fees based on proportionate share principles.*

The attempt here is not to pose new model impact fee statutes that advance proportionality but to use the structure of existing statutes to refine or modify language to achieve the same effect on a case-by-case basis.

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<sup>14</sup> The actual method of calculation can be based on “functional population” which has become widely used since the early 1990s. See Nicholas, Nelson and Juergensmeyer, 1991, *A Practitioners’ Guide to Development Impact Fees*, American Planning Association (Chicago).

## **8. SUMMARY AND GUIDANCE FOR ADVANCING PROPORTIONALITY**

That different residential unit types vary in their impact on facilities is generally accepted. That larger dwelling units have greater impacts on facilities than smaller ones is also generally accepted. That facility costs generally decline per unit of development served as density increases is also generally accepted. Finally, that differently configured projects with the same number of development units can have different facility impacts is generally accepted. As the next generation of impact fee activity commences, it is important for these and related considerations to be advanced. To further this, it is recommended that housing-advocacy organizations engage in impact fee deliberations in at least the following ways:

- Based on legal counsel with knowledge of relevant state statutes, work with legislators to amend existing language in ways that promote proportionate share impact fees based on residential unit type, size, urbanization, and configuration but without unduly restricting flexibility for local governments to be creative in ways consistent with apartment interests.
- Volunteer to participate on impact fee advisory committees. Most enabling acts require a large share of advisory committee membership to be composed of representatives of the development community. It is the author's reflection based on two decades of experience in the field that apartment interests are usually under-represented if at all.
- To the extent possible, participate in the drafting of impact fee requests-for-proposals to highlight that successful bidders would be capable of calculating impact fees based on principles discussed throughout this report; and participate in the impact fee consulting selection process.
- During the impact fee development process and to the extent possible, provide data and analysis that may be used to advance proportionate share impact fees based on principles reviewed in this report. In addition, be especially mindful of how credits are addressed and especially attempt to ensure that full revenue credits are considered.

Impact fees are unlikely to be replaced with higher taxes or new revenue from state and federal agencies; they are likely here to stay and even more likely to be increased and broadened in scope. What is important is that they fairly reflect proportionate share principles.



# APPENDIX A

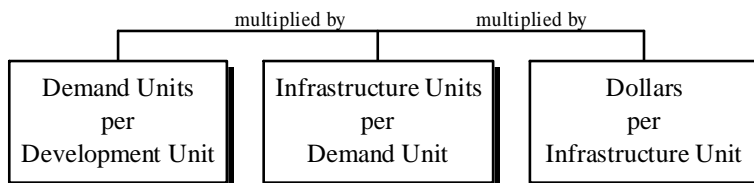
## Impact Fee Basics

This appendix reviews impact fees in general terms. It starts with an overview illustrating general calculation principles and focusing on differences between calculation approaches. It continues with discussions on policy rationale, legal foundations and their application, rational nexus application, impact fee policy considerations, and administrative considerations.

### Overview

Impact fees are one-time payments to help finance growth-related infrastructure that is needed to accommodate development. An important step in the impact fee methodology is establishing the criteria that distinguish “system improvements” from “project-level improvements.” The former are funded through impact fees while the latter are addressed through development agreements for individual projects. System improvements benefit multiple development projects, or even the entire jurisdiction. For example, a traffic signal that facilitates access to a shopping center is a project-level improvement, whereas a traffic signal a mile away from the shopping center, at the intersection of two arterial streets, would be regarded as a system improvement that expands the capacity of the entire transportation network.

The typical impact fee methodology uses a generic three-step impact fee formula as a framework for analysis. The generic impact fee formula, illustrated below, is a simple multiplication of three ratios. The first ratio, shown in the left box, specifies the relationship between demand units and development units. Determining the “best” demand indicator for each type of infrastructure is an important step that may highlight or mask relative variation in service demands by type of housing. The second ratio, shown in the middle box is the typical Level-Of-Service (LOS) standard that most people associate with impact fees. Quantitative measures, such as acres of parks per thousand people, establish the relationship between infrastructure units and demand units. The third ratio in the generic impact fee formula is also an important qualitative standard because cost factors vary significantly across the country. This is essentially how the Per Capita Multiplier method is operationalized as “demand units per development unit” and in the case of residential development is the person and the number of persons per unit – such as persons per 1,000 square feet of heated space.



### ***Common Impact Fee Methods***

When applied to specific types of infrastructure, the generic impact fee formula is customized using three common impact fee methods that focus on different timeframes. Past, present and future perspectives may be used to establish the critical relationship between infrastructure units and demand units. A general requirement that is common to impact fee methodologies is the evaluation of credits. A revenue credit may be necessary to avoid potential double payment situations arising from one-time impact fees plus on-going payment of other revenues that may also fund growth-related capital improvements. The determination of credits is dependent upon the impact fee methodology used in the cost analysis. There are three basic approaches used to calculate impact fees and each is linked to different credit methodology. We elaborate on these three perspectives and methodologies in the sections below. We also comment on need to reduce impact fees to reflect in-kind and revenue credits generated by new development.

### ***Cost Recovery***

To the extent that new development is served by the previously constructed improvements, local governments may seek reimbursement for their public facility costs. This method is used for “oversized” facilities that have adequate capacity to accommodate new development, at least for the next five years. The rationale for the cost recovery approach is that new development is paying for its share of the useful life or remaining capacity of an existing facility. Cost recoveries are typically used for water and sewer utilities or unique facilities that may have been designed to accommodate build out of the jurisdiction.

A cost recovery method establishes the relationship between historical costs and a future capacity measure. For example, an impact fee analysis would provide documentation on a wastewater treatment plant that was constructed “q” years ago, at a cost of “r” dollars, with a capacity of “s” million gallons per average day, which should accommodate development for “t” additional years based on current demographic trends. The cost recovery method is also known as a recoupment impact fee.

### ***Incremental Expansion***

The second basic approach used to calculate impact fees is the incremental expansion cost method. This method documents the current LOS for each type of public facility in both quantitative and qualitative measures. Impact fees paid by new development will incrementally expand infrastructure to maintain the current standards. The incremental expansion method is also known as a consumption-driven impact fee.

### ***Plan-Based***

A third impact fee approach is the plan-based method. This method is best suited for public facilities that have commonly accepted engineering or planning standards and specific capital improvement plans. A caveat regarding this methodology is the possibility that new development is being asked to pay for a higher level of service than the existing demand base. When this occurs, the existing infrastructure deficiency must be funded from non-impact fee revenues. The plan-based method is also known as an improvements-driven impact fee.

## **Policy Rationale**

The principal disadvantage of impact fees lies in the attitudes the developers may adopt towards them. Because the fees are an up front cost to the developer, they represent an increased cost until the time of completion or sale of the development. In addition, if the fees are passed on to the actual consumer, the developer's product will be less price competitive compared to existing construction and products offered in competing communities. Developers thus may need to reduce near term profits to offset impact fees. Still, many developers realize that the alternative to impact fees and the facilities for which they are invested, is building moratoria due to inadequate facilities. Among these choices, impact fees tend to be what developers see as the lesser of two evils.

Impact fees cannot be formulated and applied overnight. Rather, the adoption of impact fees requires considerable planning and a willingness to tackle difficult problems associated with allocating costs proportionate to benefits. The planning required includes preparation of a comprehensive land use plan in tandem with a capital improvements program. Through statutes or case law, most states require communities to base impact fees on a land use plan that distributes development according to some rational procedures. Communities then must prepare a capital improvements program that assures development of adequate facilities when those facilities are needed.

## **Legal Foundations**

From a legal perspective, impact fees are justified as a police power action. In particular, local governments may collect impact fees if the fees are logically connected to the impacts of the development and are being expended in a manner that mitigates the impacts by providing for needed infrastructure. The courts have recently begun to speak with clarity and consistency in delineating a defensible legal framework for impact fee systems. Three broad areas are necessary to be addressed: statutory authority, constitutionality, and rational nexus.

Local governments usually need authority to impose impact fees. This authority may be in the form of broad regulatory or home rule powers. More explicit authority takes the form of state enabling legislation, as in Arizona, California, Maryland, Maine, Vermont and Texas. Lacking explicit enabling legislation, communities must rely on the exercise of the police power, as they do in zoning and land use regulations. Because the police power is broad in scope, the authority to impose impact fees as part of the regulatory scheme may be implied from general grants of authority. Impact fees used in many states rely not on explicit enabling legislation but on the exercise of the police powers. This is the case in Florida.

The constitutionality of using an impact fee centers on whether the objectives sought are pursuant to federal and state constitutional law. There are three constitutional issues through which impact fees may be challenged: (1) due process, (2) equal protection, and a (3) taking of property without just compensation. Generally speaking, due process claims

allege that the development impact fee is beyond the authority, *ultra vires*, of the police power of the locality because it is arbitrary and capricious, and lacking a rational basis. This objection is overcome by clearly demonstrating that new development causes the need for new or expanded facilities. Under equal protection analysis, focus is on whether the use of the fee has produced a discriminatory result. This challenge is met by simply assessing similar fees on similar new development. The majority of court decisions in determining the legality of impact fees have held that the objective of the fee is permitted by the local government if it is in accord with its regulatory authority, i.e. the police power.

With regard to the taking issue, the court will determine whether the impact fee on new development is reasonably related to the public health, safety, and welfare of the community. A rational nexus (logical connection) must exist between the fee imposed, the use of the fee to pay for new or expanded facilities, and the new development causing the need for new or expanded facilities. This test thus has two aspects: 1) the new development must cause a demand for new capital facilities; and 2) the fee imposed must represent a development's proportionate share of the total cost of all facilities that serve their development.

## **Rational Nexus Application**

In review, the rational nexus test requires that there be a connection established between new development and the new or expanded facilities required to accommodate that development, identification of the cost of those new or expanded facilities needed to accommodate new development, and appropriate apportionment of that cost to new development in relation to benefits it reasonably receives. Failure to meet the rational nexus test may result in a court declaring the fee to be an unauthorized tax or an unallowable exercise of local government power. Also of substantial concern is assuring developers that they are paying only a fair share, and not more than their fair share. This section discusses how this may be done.

### ***Attributing Improvement Costs***

The primary factors involved in attributing improvement costs to new development are selection of facility standards, identification of current deficiencies that must be upgraded by current development, and determination of the appropriate share of the cost of constructing new facilities to be borne by new development.

#### 1. Facility standards

During the comprehensive land use planning and capital improvements programming process, a set of facility service standards must be adopted. Standards can include acres of parks per 1000 population; domestic water and wastewater flow or treatment measure per acre, resident, or square foot of different land use types; sworn police, fire, and emergency medical personnel per 1000 population, or active resident; number of books per capita; and so forth.

2. Identifying current deficiencies and means to remedy

Under the rational nexus test, new development cannot be charged for upgrading facilities used primarily for the benefit of existing development. Existing deficiencies must be determined. New development cannot be assessed impact fees that remedy existing deficiencies. Communities must find other ways and means which existing development may be assessed to remedy current facility deficiencies.

3. Apportioning costs to new development

Determining the proportionate share of costs to be borne by new development entails consideration of seven factors.

(a). *Determining the cost of new facilities*

The capital improvement program should identify the cost of new or expanded facilities. Those costs must be apportioned to new development, usually by major land use type, and further refined to account for variations of demand for improvements by individual activities within each major land use type.

(b). *Determining how existing facilities were financed*

Existing development must be sheltered from the cost of new facilities necessitated by new development. Conversely, new development must be sheltered from the cost of paying for facilities that will be paid in part by other sources of revenue. How existing facilities were financed and the extent to which those means are available to finance improvements must be determined. For example, some facilities may have been financed from property taxes, intergovernmental transfers, and user fees. Those same financing means may be available to support improvements.

Another consideration is depreciation. Existing facilities paid for in the past and future by new development depreciates. Depreciation of facility capacity benefiting existing development paid for by new development must be accounted for. While courts have not ventured into this subtle area of impact fees, we believe it is only a matter of time (and sophistication on the part of plaintiffs).

(c). *Determining how much new development has already paid for existing facilities benefiting existing development*

The extent to which new development has paid for existing facilities (e.g., through property taxes) over an appropriate period of time (five to ten years is typical) must be determined. These payments must be credited to new development, otherwise new development would be assessed both for improvements it demands and facilities currently used by existing development.

(d). Determining how much new development will pay in the future for existing facilities benefiting existing development

Likewise, the extent to which new development will pay for existing facilities in the future must be estimated. For example, property taxes assessed on new development to retire bonds used to construct facilities for existing development must be credited. Another example is where current deficiencies will be remedied by property taxes assessed on all property in the future; new development will have to be credited for its future contributions to remedying current deficiencies. This is in contrast to some impact fee programs that do not provide such credits; those programs may face serious future legal challenge resulting in voiding of ordinances or refunding of fees paid.

(e). Determining credits for facilities installed by new development

New development may occasionally opt to install certain facilities scheduled in the program. It should be given credit for facilities it installs for the benefit of the public. For example, a road scheduled for improvement in five years for a cost of \$1 million may be constructed by a developer. A \$1 million credit against road impact fees may be granted. If road impact fees would be less than \$1 million, then the developer may be given the difference through future road impact fees paid by other developers.

(f). Determining extraordinary costs

Improvement cost estimates for facilities scheduled for future construction will change over time due to inflation, rising property value, and rising material and labor rates (exclusive of inflation). Some impact fee programs build in assumptions of long term price increases that sometimes bear no relation to reality over time. Impact fee programs should allow for annual adjustments of fees reflecting changes over time.

(g). Allowing for the time-price differential inherent in fair comparisons of amounts paid at different times

Perhaps the most difficult consideration in determining appropriate impact fees is accounting for money paid at different times for facilities already constructed or not yet constructed. Three impact fee adjustments account for the time-price differential inherent in fair comparisons of amounts paid at different times.

(1). *Past payment*

Take the example of a local government that had a five year park plan financed solely from property taxes to construct a park system serving only existing development. Vacant, developable land has been assessed property taxes that help pay for those parks. New development must be credited the present value of past property tax payments that went to finance the new parks.

(2). *Future payment*

Some local governments account for future payments a development may make toward roads financed by impact fees. They consider the difference between the current value of motor fuel taxes that new households will pay in the future and the present value, per dwelling unit, of new roads. Perhaps the road impact fee without future motor fuel tax payments is \$2,785 per new single family unit. The average new household occupying a single family unit will contribute \$77 per year in motor fuel taxes used by local government to build the very roads financed in part by road impact fees. Thus, over 25 years, the present value of those future contributions, discounted at, say, 6%, is \$990. The impact fee is properly \$1,795 per unit (or \$2,785 minus \$990).

A primary purpose of these steps is to assure that double charging is avoided. New developments that pay for a facility or service through both an impact fee and by its stream of taxes over time are double charged. The common solution to double charging is to conduct fiscal and economic analyses to define the nature and distribution of revenues. Local government can appropriately discount each type of fee until the combination of impact fees and other revenues does not exceed 100 percent of the total facility expansion. Accurate documentation of the impact fee system will help avoid double charging.

(3). *Fees assessed to build future facilities*

A substantial amount of time may elapse between the time a developer pays impact fees and when facilities benefiting new development are actually built. Local government can invest those fees at 8 percent until needed for construction. This is called the private cost (it costs the private sector this much to accommodate public sector investment). If local government had borrowed the money, its borrowing rate would be 6 percent. This is called the private benefit (money borrowed at such rate for immediate expenditure on goods benefiting the private sector). There is a net private cost of 2 percent per year for withholding expenditure of impact fees for construction of facilities that benefit private development. Impact fees should thus be adjusted to reflect the difference between the private cost and the private benefit. If a facility benefiting private development that is assessed impact fees will not be built for 10 years, the impact fee should be discounted by 18 percent (present value of principal discounted at 2 percent compounded over 10 years).

***Ascribing Benefit***

Part A merely fulfills the first element of the rational nexus test: determining the incremental cost that new development will impose on existing development. We now turn to ascribing the benefit received by contributing development. There are two elements: substantial benefit and certainty of benefits.

1. Benefit

The rational nexus test does not require that contributing development benefit exclusively from facilities it helps to finance with impact fees. The important question is whether it substantially benefits. That is, can the tenants of contributing development be expected to use the facilities for which they have been charged? This issue is resolved by locating facilities in such a way that a court may reasonably expect that tenants would benefit. For example, impact fees used for a road very far away from contributing development could be construed as substantially benefiting that development nonetheless (by being available for longer commutes or relieving loads on other streets that contributing development tenants would use). This does not assure certainty of receiving substantial benefit, however.

2. Certainty

There must be certainty that contributing development will in fact substantially (although not exclusively) use a facility it helps pay for. Palm Beach County resolves this issue by expending road impact fees within six miles of contributing development. Montgomery County, Maryland, expends impact fees within service areas or districts within which contributing development is located.

***Credits***

An important but often overlooked feature of impact fee analysis is taking stock of “credits” so that new development is not paying twice for facilities to accommodate its impact: once through the impact fee and again through a share of taxes or other fees it generates that may be used to finance the same facilities paid for by impact fees.

There are two forms of “credit” that can reduce impacts and thus should be considered in impact fee calculations: *revenue* and *in-kind*. A general requirement that is common to impact fee methodologies is the evaluation of revenue credits. A revenue credit may be necessary to avoid potential double payment situations arising from one-time impact fees plus on-going payment of other revenues that may also fund growth-related capital improvements. The determination of credits is dependent upon the impact fee methodology used in the cost analysis. Each of the common impact fee methods is linked to different credit methodology.

When using a cost recovery method, it is important to determine whether new development has already contributed toward the cost of existing public facilities (i.e., a past revenue credit). In addition to a past-revenue credit, outstanding principal and interest payments are typically subtracted from the value of the asset that was oversized for new development.

When an incremental expansion method is used, new development is providing front-end funding of infrastructure. There is potential double payment of capital costs if the

jurisdiction bond financed the existing infrastructure. Impact fees must be reduced to account for future principal payments on existing debt for public facilities. A credit is not necessary for interest payments if interest costs were not included in the impact fees. If a plan-based approach is used to derive impact fees, the credit evaluations should focus on future bonds and dedicated revenues that will fund planned capital improvements. For example, special purpose sales tax revenue and gas taxes may require a credit against impact fees.

In-kind credits reflect facilities provided directly by new development for the very facilities for which impact fees are assessed. For example, if a master-planned community includes parks accessible to the public and those parks were to be financed in part by impact fees, the developer would often have impact fees reduced by the value of in-kind park contributions. In addition to parks, school sites, public safety facilities, and certain kinds of roads are common forms of in-kind contributions. Unfortunately, the role of in-kind contributions as a way to reduce impact fees on apartments is not understood well and is an area of future research, as discussed in the last section of this report.

## **Impact Fee Policy Considerations**

The fee structures must be sensitive to local competitive markets. In many cases, the city or county may be able to recover the total cost of infrastructure and still allow the developer to maintain an economically viable project. Local policy makers need to be aware of the potential impact on the rate and scale of development that may result from a given level of impact fee assessment. Unrealistically high impact assessments may have the effect of driving development to other jurisdictions where fees are lower or non-existent.

Impact fees can, in many instances, also be utilized as a growth management tool. Certain types of development may be encouraged or discouraged by the impact assessment structure. Differentiation of the fee structure from area to area can serve to regulate development in accordance with the local growth policy, as long as the differentiation is consistent with infrastructure needs and costs. Impact fees, however, can never be used to pay for the operation and maintenance of facilities, even those the construction of which was financed in whole or in part by impact fees.

For those and other reasons, many communities that first viewed impact fees as a panacea for their facility financing dilemma have, upon analysis, decided against the approach. It is frequently easier to ask voters to finance the facility improvement than to expend the energy and resources needed to create a legally sound impact fee system. An assessment of the potential benefits of an impact fee system is therefore one of the first activities necessary in establishing its feasibility and desirability.

Social and equity issues must also be considered. Impact fees can raise the price of housing beyond that which low income households can afford. One solution is to exempt developments containing greater than 50 percent low-income housing from the fee. Another alternative is to exempt the portion of the development which is low-income

housing from the fee. Many local governments create exemption, credit, or alternative payment programs to assist in the provision of low and moderate income housing. Alternative ways of reducing inequitable effects of impact fees would need to be developed before adoption of an impact fee system. Communities are often advised by legal counsel to pay fees on behalf of lower and moderate income housing out of the general fund rather than waive them altogether. Their rationale is that if some projects have fees waived while others are assessed, there may be a violation of the equal protection provisions of the U.S. Constitution.

## **Administering Impact Fee Programs**

Effective exercise of that motivation depends on a sound design philosophy that will withstand court review. Impact fee programs should address certain key administrative considerations:

### ***Assessment***

What must be decided is the appropriate stage of development at which to assess impact fees. Alternative stages include project/subdivision approval (platting), issuance of building permits, or issuance of occupancy permits. It is likely that the appropriate stage of assessment depends on the facility being financed by impact fees, and the kind of development being assessed. Impact fees are commonly assessed at the building permit stage since local government already has experience and procedures established to collect fees at that stage. Moreover, by reviewing building plans one can more carefully estimate the nature of the impacts and the impact fees to assess. Some communities assess an initial fee at the project approval stage (platting, rezoning, site plan approval), then assess additional fees at the building permit stage. Other communities assess fees at the certificate of occupancy stage -- but this is least common since the purpose of impact fees is to generate (and spend) revenue before the impacts are felt.

### ***Collection***

The fundamental issue in collection is: who will collect the fees? Since the objective of assessing impact fees is to provide the community and its various agencies with needed revenues, close collaboration is needed between the assessing agency and the expending agencies. Collection of impact fees should be handled by one agency. Usually, it is the building agency. Sometimes it is the planning agency or a centralized accounting office. In any event, all agencies need to know from the assessing agency (a) what the fee schedule is, (b) how many fees are collected from which developments, and (c) when the building permit was issued and the expected date of development completion. For example, Broward County uses a five-copy receipt that is distributed to the person who pays, the planning office, the accounting office, the public works staff, and the parks staff. In one county that assesses fees for schools, senior centers, child care, and housing in addition to more traditional uses, copies of receipts are also sent to those agencies.

## ***Accounting***

Accounting procedures are needed to assure that impact fees collected are deposited into earmarked accounts, expenditures from which will benefit contributing development. That is, impact fees collected for schools, parks, and roads must be earmarked for school, park, and road accounts. Furthermore, if the impact fee ordinance requires segregation of revenues geographically (by service area or district), the accounting system should incorporate such a segregation scheme. The accounting system should also be designed to make available to anyone information on where impact fees from individual contributing developments were spent. This allows public officials and developers alike to be assured that impact fees benefit contributing development.

## ***Disbursement***

It goes without saying that impact fees must be spent. The manner of expenditure can be complex, however. Issues are raised relating to earmarking, timeliness of disbursement, location of disbursement, and effect on community capital financing policies.

### ***1. Earmarking***

While impact fees should be earmarked to accounts in the manner suggested above, care must be taken not to accumulate so many separate accounts that are too small to be useful, or restricting the use of money in accounts in a manner that jeopardizes specific capital improvements. Broward County, Florida, faced this very problem with its road impact fees. Impact fees were deposited into hundreds of accounts, each earmarked for a specific road improvement. Few accounts were large enough to pay for the intended improvement. Eventually, the county reduced the number of accounts and changed administrative procedures to allow pooling of revenue under certain conditions.

San Diego County, California, collects impact fees for specific projects but puts all money into a single, master account. That money is used to construct facilities based on a 20 year capital improvement program. Technically, impact fees collected for one improvement not scheduled for construction until several years later are loaned to another project scheduled for improvement in an earlier year. Impact fees collected for improvements that are already constructed repay funds borrowed from other accounts.

### ***2. Timing***

Impact fees must be expended within a reasonable amount of time. Most communities attempt to expend them within a five or six year capital improvement program. There are exceptions, however. In San Diego County, some improvements are not built until nearly two decades after fees are collected. The program includes a master capital improvements program that explicitly shows when those facilities would be built. The county further demonstrated that there would be no need for those facilities until future years. Contributing

development is not deprived of benefits since facilities will be built benefiting development as the need arises.

When facilities financed by impact fees are scheduled for construction but must be delayed, impact fees need not be refunded. Among the conditions needed to extend the expenditure of impact fees are under-collection of impact fees due to reduced growth rates and discovery of extraordinary costs that affect prudent construction of facilities at the time originally planned.

### 3. Location

Various schemes are used to assure that contributing development benefits from the facilities it helps to finance. In Loveland, Colorado, it is presumed that all facilities financed in part by impact fees benefit all new development. This is an easy presumption since the town is rather small and it is reasonable to expect that all new development benefits from construction of all new facilities.

Where impact fees are collected on a countywide basis or in larger cities, however, it is usually customary to devise benefit districts or zones for each facility to be financed by impact fees. For example, the city of Raleigh, North Carolina, divides its city into three road benefit zones. Road improvements within each zone are estimated and impact fees for each zone are determined. New development within each zone pays a different road impact fee.

Unlike the zonal system used by Raleigh, Broward County expends impact fees for local parks within 2.5 miles of contributing development. It spends fees for regional parks within 15 miles of contributing development.

But some counties finance some facilities with impact fees that benefit all new development everywhere, and there is no need to devise benefit districts or zones. For example, Manatee County, Florida, applies the same solid waste disposal impact fee on all development.

Matching the location of contributing development with the location of facilities financed by impact fees depends on the facility. Each facility has its own unique service area: local parks may serve areas of 2.5 mile radius while regional parks may serve areas of 15 mile radius. Expressways may serve an entire county, but certain collector streets serve limited areas. Solid waste sites serve large regions, but compacting and transfer stations may serve smaller areas. In general, impact fees must be tailored to the service area of the facility being financed with those fees.

### 4. Effect on Capital Improvement Policy

Impact fees can, however, influence existing capital improvement policy. For example, suppose that impact fees are assessed for a regional park scheduled for construction in five years. Impact fees pile up and substantial revenue is on deposit. But after five years it is discovered that park construction prices have risen faster than impact fee collections and

account yields. The local public officials face the choice of deferring construction of the park, at risk of political pressure or opposition by developers who contributed money to the park, or taking money from other projects and diverting it to the park.

The availability of impact fees that are dedicated to certain facilities may thus place them on higher priority than other projects. This will happen in those communities that must contribute general funds to projects because credits had to be given to new development for other payments new development made to existing facilities benefiting existing development. The effect, however, is to place at higher priority facilities that may solely benefit new development, and place at lower priority facilities that are long overdue but solely benefit existing development, or that benefit the entire community.

### *Enforcement*

The most common problem facing administrators is assuring that developments use the land consistent with that which was approved. The most serious situation occurs when a development is approved for and is occupied by one kind of activity, perhaps low employee density activities, and is eventually replaced by higher employee density activities. Roads are more greatly impacted by the development than initial projections and impact fees estimated. Communities thus need to monitor the actual use of developments to assure consistency with initial permitted uses or initial fee payments. This may be accomplished by monitoring business license changes. When a license indicates a different or more intensive use, there may be a land use violation. The remedy may include additional impact fees. Lee County, Florida, attempts to resolve this problem by making it a misdemeanor for knowingly avoiding payment of the full impact fee.

### *Variations*

Impact fee programs must include provisions for variance. At issue is the impossibility of knowing exactly the impact fee due for every project. Developers, for example, may claim lower road impact fees for a particular project than indicated or implied on the formal road impact fee schedule. Variance provisions would allow developers to perform their own impact fee analysis and present it to either administrators or the governing body (or its designee, such as the planning commission). Administrative hearings may be conducted where the fee proposed by the developer is up to 25 percent (or so) less than the schedule would assess. Differences of more than that amount would be heard before the governing body. Differences of less than 10 percent may not be subject to hearing, however, as the estimated impact of the community would be close to that estimated by the developer.

The decision to allow all or part of the developer's variance request would probably depend on the community's independent analysis. One hedge is to require full deposit of the fee with an evaluation of the project's impact after one year (or so). The difference between the actual impact and the impact fees paid based on the community's estimate would be refunded with interest.

In any event, to protect against development delays, the impact fee would be paid in advance of the hearing, but the portion of the impact fee in dispute would be held in a special interest bearing account. Refund of all or part of the disputed portion would be paid from this account.

### ***Refunds***

Sometimes impact fees collected may not be used as intended. Unlike tax revenue, they cannot be diverted to other purposes. Unspent impact fees may need to be refunded if the facilities they were to finance are cancelled or unreasonably delayed. The questions involved here focus on notice and the parties who should be paid.

Start with whom should be paid. Impact fees paid by a developer are recouped by the developer through lower land prices or higher development prices, or a combination of the two. Developers may also take a smaller profit. It is impossible for a community, however, to decide which party in the complex development process paid how much of the impact fee. Instead, communities may simply opt to entitle only current owners of the contributing development under the theory that it is ultimately the owners who absorb most of the impact fee in higher priced, lower quality, and/or higher density development.

Notice may then be given to all owners of contributing development as shown on the local property tax records. Notice should be by registered mail. Owners should be given a reasonable period of time, perhaps three months to one year, to claim the refund. Refund claims should be relatively simple, involving only certification of ownership.

For its part, determining the appropriate impact fee to be refunded involves using the very formulas or schedules used to determine the impact fee when first paid. Refunds should also include interest, probably at the local government borrowing rate.

### ***Data Maintenance***

The impact fee program must be continually updated as to assumptions, facility cost estimates, growth patterns and rates, demographic changes, and so on. Impact fee assessments will therefore be kept current and less subject to adverse court review. Three considerations are posed.

First, the community should establish the frequency at which it updates each impact fee schedule or formula. Specific staff should be explicitly assigned this responsibility. Data updating may require establishing formal links between agencies; perhaps an impact fee updating task force comprised of representatives of all affected agencies would meet annually to review changes.

Second, the governing body or its designee should establish a formal process by which changes are effected. This may include a formal public hearing during which the changes are proposed and adopted. Citizens and developers would also be allowed to propose

changes at that hearing. Changes that are adopted should be supported by findings. Such a process should remove the taint of arbitrariness whenever the changes result in higher fees.

Third, the community might decide the conditions under which unscheduled re-evaluation would occur. Changes may include substantially higher or lower than projected growth rates, large formerly unplanned annexations, and major changes in the construction standards of new facilities (for example, federal requirements for vastly improved and more expensive water and wastewater plants).

### *Administrative Costs*

Impact fee programs carry initially high implementation costs (including the costs associated with analysis, planning, and programming). Those costs can be folded into the impact fees to be assessed.

One of the principle advantages of impact fee programs is their ease of administration. Figures vary and figures reported here are informally gathered, but the cost of administering impact fee programs range from about two to about five percent of impact fee collections. If the cost of administration can be determined, it may be recovered by impact fees themselves. This is acceptable practice throughout Florida, for example. The procedure involves reasonably documenting the cost of administering impact fee programs as a percentage of total impact fee receipts (sometimes divided into each impact fee assessed). This cost is then added to impact fees as a proportionate increase covering administrative costs.



## **APPENDIX B**

### **CONTENT ANALYSIS OF IMPACT FEE METHODOLOGIES**

#### **Overview**

The following is a summary of analysis of the content of 67 impact fee technical reports and/or ordinances collected and the content analyzed for this study. The methodologies vary considerably by geography and complexity. One thing many have in common is that they were prepared by some of the nation's most prominent impact fee firms. This information helped frame the larger content analysis effort and guide application of the model impact fee formula.

#### **Jurisdictions Selected (67 Total):**

Jurisdictions were not selected based on formal sampling because there is no census of jurisdictions for which impact fees are assessed. Jurisdictions were selected for their geographic, size, and consultant variation. For jurisdictions with multiple technical reports or multiple consultants, the most recent is listed. For some jurisdictions, the ordinance was the only data source. The methodology outlined in the technical report(s) may or may not have actually been adopted in part or in full by the jurisdiction.

- AZ- Avondale
- AZ- Buckeye
- AZ- Chandler
- AZ- Fountain Hills
- AZ- Gilbert
- AZ- Glendale
- AZ- Goodyear
- AZ- Mesa
- AZ- Peoria
- AZ- Sedona
- AZ- Surprise
- AZ- Tucson
- AR- Bentonville
- AR- Conway
- AR- Fayetteville
- CA- Calimesa
- CA- Gilroy
- CA- San Diego – Serra Mesa
- CA- Sutter County
- CA- Yuba City
- CA- Yucaipa
- CO- Larimer County
- DE- New Castle County
- FL- Clay County
- FL- Collier County
- FL- Lake County
- FL- Lee County
- FL- Manatee County

FL- Mount Dora  
FL- Osceola County  
FL- Palm Beach Gardens  
FL- Pasco County  
FL- Seminole County  
GA- Atlanta  
GA- Cherokee County  
GA- Forsyth County  
GA- Henry County  
GA- Kennesaw  
GA- Rockdale County  
ID- Post Falls  
ID- Sandpoint  
MD- Calvert County  
MD- Charles County  
MD- Frederick County  
MD- Queen Anne's County  
NE- Lincoln  
NV- Las Vegas  
NH- Fremont  
NH- Manchester  
NH- Windham  
NM- Bernalillo County  
NM- Rio Rancho  
NC- Cary  
NC- Durham County  
NC- Orange County  
OH- Delaware  
OR- Salem  
OR- Tigard  
OR- West Linn  
RI- East Greenwich  
TN- La Vergne  
TN- Smyrna  
TX- Denton  
UT- Sandy City  
UT- West Valley City  
WA- Bothell  
WA- Pierce County

**Instances of Each Fee Type (263 Total):**

Parks and Recreation and/or Open Space and/or Trails: 52  
Fire and/or EMS and/or E911 Communications: 40  
Roads and/or Traffic Signals and/or Transit: 37  
Police and/or Criminal Justice or Combined Public Safety: 35  
Libraries: 21  
Water Infrastructure and/or Water Resources: 20  
Government Buildings and/or Public Facilities and/or Combined Public Infrastructure: 18

Wastewater: 15  
Schools: 12  
Stormwater/Drainage: 10  
Other: 3 (Sanitation, Solid Waste, Animal Control)

### **Jurisdiction Population Breakdown (2000 Census)**

<50,000: 27  
50,000-100,000: 9  
100,000-200,000: 13  
200,000-500,000: 14  
>500,000: 4

### **Jurisdiction Type Breakdown**

Urban/Suburban/Rural designation is given based on the jurisdictions location in relation to Census 2000 Metropolitan Statistical Areas (MSAs) or Combined Metropolitan Statistical Areas (CMSAs). If a jurisdiction is the major city of an MSA or one of the major cities constituting a CMSA, it is classified as 'urban'. If a jurisdiction is or lies within a county that is part of an MSA or CMSA but is not or does not contain a major city of that MSA or CMSA, it is classified as 'suburban'. If a jurisdiction is not within any MSA or CMSA it is classified as 'rural'. If the jurisdiction is a county that does contain a major city of an MSA or CMSA, it is classified as 'mixed', since the county would contain the major city as well as suburban jurisdictions.

City/Town: 44  
County: 23

Urban: 12  
Suburban: 46  
Rural: 4  
Mixed: 5

### **State Legal Environment**

Specific Enabling Legislation (Dillon's Rule State): 43  
Specific Enabling Legislation (Home Rule State): 8  
No Specific Enabling Legislation (Home Rule State): 11  
No Specific Enabling Legislation (Dillon's Rule State): 5

## **Parks and Recreation and/or Open Space and/or Trails (52):**

### **Assessment Distribution**

Residential Only: 42  
Includes Non-Residential Uses: 10

### **Residential Differentiation**

Differentiation by Type and Size: 3  
Differentiation by Size Only: 1  
Differentiation by Type Only: 37  
No Residential Differentiation: 11

### **Type Differentiation – Number of Categories**

2 categories: 12  
3 categories: 20  
4 categories: 4  
5 categories: 4

### **Service Areas**

One Service Area: 45  
Multiple Service Areas: 7

### **Method**

Cost Recovery/Buy-In: 1  
Incremental Expansion: 26  
Plan-Based: 8  
Combination Buy-In/Incremental: 4  
Combination Buy-In/Plan-Based: 0  
Combination Incremental/Plan-Based: 4  
Combination All Three: 0  
Indeterminate: 9

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Acres: 69  
Dollars (replacement cost/expenditure): 47  
Square Feet (rec. facilities): 2  
Vehicles and Equipment: 2  
Number of Rec. Facilities: 1  
Linear Feet (trails): 1  
Miles (trails): 1

### **Residential Demand Unit Cost Unit**

Person/Resident: 31  
Dwelling Unit: 10  
Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 8  
Functional or Seasonal Population: 2  
Vehicle Miles Traveled: 1 (trails fee)

## **Fire and/or EMS and/or E911 Communications (40):**

### **Assessment Distribution**

Residential Only: 1  
Includes Non-Residential Uses: 39

### **Residential Differentiation**

Differentiation by Type and Size: 0  
Differentiation by Size Only: 0  
Differentiation by Type Only: 29  
No Residential Differentiation: 11

### **Type Differentiation – Number of Categories**

2 categories: 9  
3 categories: 13  
4 categories: 5  
5 categories: 1  
6 categories: 1

### **Service Areas**

One Service Area: 39  
Multiple Service Areas: 1

### **Method**

Cost Recovery/Buy-In: 1  
Incremental Expansion: 21  
Plan-Based: 2  
Combination Buy-In/Incremental: 2  
Combination Buy-In/Plan-Based: 0  
Combination Incremental/Plan-Based: 6  
Combination All Three: 0  
Indeterminate: 8

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Dollars (replacement cost/expenditure): 63  
Vehicles/Apparatus: 14  
Square Feet (station/communications buildings): 14  
Acres (station sites): 4  
Stations: 2  
Communications Equipment: 1

### **Residential Demand Unit Cost Unit**

Person/Resident: 17  
Dwelling Unit: 10  
Service Demand Unit/Service Call/Incident: 5  
Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 4  
Functional or Day-Night Population: 4

## **Roads and/or Traffic Signals and/or Transit (37):**

### **Assessment Distribution**

Residential Only: 0  
Includes Non-Residential Uses: 37

### **Residential Differentiation**

Differentiation by Type and Size: 3  
Differentiation by Size Only: 0  
Differentiation by Type Only: 32  
No Residential Differentiation: 2

### **Type Differentiation – Number of Categories**

2 categories: 12  
3 categories: 12  
4 categories: 6  
5 categories: 4  
>5 categories: 1

### **Service Areas**

One Service Area: 31  
Multiple Service Areas: 6

### **Method**

Cost Recovery/Buy-In: 0  
Incremental Expansion: 7  
Plan-Based: 18  
Combination Buy-In/Incremental: 0  
Combination Buy-In/Plan-Based: 2  
Combination Incremental/Plan-Based: 4  
Combination All Three: 1  
Indeterminate: 5

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Dollars (replacement cost/expenditure): 38  
Per Trip: 23  
Per Vehicle Mile Traveled (VMT): 15  
Vehicle Miles of Capacity (VMC) (per VMT): 9  
Trips (per Lane Mile): 3  
Vehicles (per Lane Mile): 1  
Traffic Signals (per VMT): 1

### **Residential Demand Unit Cost Unit**

Trip (includes both peak-hour and average daily): 22  
Vehicle Mile Traveled (VMT): 13  
Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 1  
Dwelling Unit: 1

## **Police and/or Criminal Justice or Combined Public Safety (35):**

### **Assessment Distribution**

Residential Only: 0  
Includes Non-Residential Uses: 35

### **Residential Differentiation**

Differentiation by Type and Size: 0  
Differentiation by Size Only: 0  
Differentiation by Type Only: 24  
No Residential Differentiation: 11

### **Type Differentiation – Number of Categories**

2 categories: 7  
3 categories: 8  
4 categories: 7  
5 categories: 2

### **Service Areas**

One Service Area: 34  
Multiple Service Areas: 1

### **Method**

Cost Recovery/Buy-In: 0  
Incremental Expansion: 15  
Plan-Based: 5  
Combination Buy-In/Incremental: 4  
Combination Buy-In/Plan-Based: 0  
Combination Incremental/Plan-Based: 9  
Combination All Three: 0  
Indeterminate: 2

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Dollars (replacement cost/expenditure): 53  
Square Feet (station or justice/corrections facility buildings): 21  
Vehicles: 6  
Acres (station or justice/corrections facility sites): 3  
Communications Equipment: 1

### **Residential Demand Unit Cost Unit**

Person/Resident: 16  
Dwelling Unit: 9  
Functional or Day-Night Population: 7  
Service Demand Unit/Service Call/Incident: 2  
Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 1

## **Libraries (21):**

### **Assessment Distribution**

Residential Only: 21

Includes Non-Residential Uses: 0

### **Residential Differentiation**

Differentiation by Type and Size: 0

Differentiation by Size Only: 0

Differentiation by Type Only: 14

No Residential Differentiation: 7

### **Type Differentiation – Number of Categories**

2 categories: 5

3 categories: 6

4 categories: 2

5 categories: 1

### **Service Areas**

One Service Area: 21

Multiple Service Areas: 0

### **Method**

Cost Recovery/Buy-In: 0

Incremental Expansion: 10

Plan-Based: 2

Combination Buy-In/Incremental: 0

Combination Buy-In/Plan-Based: 0

Combination Incremental/Plan-Based: 2

Combination All Three: 0

Indeterminate: 7

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Square Feet (library buildings): 15

Books/Volumes: 15

Dollars (replacement cost/expenditure): 12

Acres (library sites): 3

Support Vehicles: 1

Computer Facilities: 1

### **Residential Demand Unit Cost Unit**

Person/Resident: 14

Dwelling Unit: 5

Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 2

## **Water Infrastructure and/or Water Resources (20):**

### **Assessment Distribution**

Residential Only: 0

Includes Non-Residential Uses: 20

### **Residential Differentiation**

Differentiation by Type and Size: 2

Differentiation by Size Only: 0

Differentiation by Type Only: 4

No Residential Differentiation: 14

(13 of the fees are assessed using meter categorizations as opposed to dwelling unit)

### **Type Differentiation – Number of Categories**

2 categories: 3

3 categories: 2

4 categories: 1

5 categories: 0

### **Service Areas**

One Service Area: 19

Multiple Service Areas: 1

### **Method**

Cost Recovery/Buy-In: 3

Incremental Expansion: 4

Plan-Based: 7

Combination Buy-In/Incremental: 0

Combination Buy-In/Plan-Based: 2

Combination Incremental/Plan-Based: 2

Combination All Three: 2

Indeterminate: 0

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Gallons per Day: 32

Per Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 26

Per Customer/Meter: 4

Per Other Unit: 2

Dollars (replacement cost/expenditure): 11

Per Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 6

Per Customer/Meter: 2

Per Other Unit: 3

### **Residential Demand Unit Cost Unit**

Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 18

Gallon per Day: 2

## **Government Buildings and/or Public Facilities and/or Combined Public Infrastructure (18):**

### **Assessment Distribution**

Residential Only: 2  
Includes Non-Residential Uses: 16

### **Residential Differentiation**

Differentiation by Type and Size: 0  
Differentiation by Size Only: 0  
Differentiation by Type Only: 12  
No Residential Differentiation: 6

### **Type Differentiation – Number of Categories**

2 categories: 2  
3 categories: 7  
4 categories: 2  
5 categories: 1

### **Service Areas**

One Service Area: 17  
Multiple Service Areas: 1

### **Method**

Cost Recovery/Buy-In: 0  
Incremental Expansion: 9  
Plan-Based: 3  
Combination Buy-In/Incremental: 1  
Combination Buy-In/Plan-Based: 0  
Combination Incremental/Plan-Based: 4  
Combination All Three: 0  
Indeterminate: 1

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Dollars (replacement cost/expenditure): 24  
Square Feet (buildings): 7  
Support Vehicles: 3  
Acres (building sites): 2

### **Residential Demand Unit Cost Unit**

Person/Resident: 11  
Dwelling Unit: 3  
Acre: 2  
Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 1  
Square Foot: 1

## **Wastewater (15):**

### **Assessment Distribution**

Residential Only: 0

Includes Non-Residential Uses: 15

### **Residential Differentiation**

Differentiation by Type and Size: 2

Differentiation by Size Only: 0

Differentiation by Type Only: 4

No Residential Differentiation: 9

(8 of the fees are assessed using meter categorizations as opposed to dwelling unit)

### **Type Differentiation – Number of Categories**

2 categories: 3

3 categories: 2

4 categories: 1

5 categories: 0

### **Service Areas**

One Service Area: 13

Multiple Service Areas: 2

### **Method**

Cost Recovery/Buy-In: 1

Incremental Expansion: 3

Plan-Based: 5

Combination Buy-In/Incremental: 0

Combination Buy-In/Plan-Based: 1

Combination Incremental/Plan-Based: 3

Combination All Three: 1

Indeterminate: 1

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Gallons per Day: 18

Per Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 12

Per Customer/Meter: 2

Per Other Unit: 4

Dollars (replacement cost/expenditure): 9

Per Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 3

Per Customer/Meter: 5

Per Other Unit: 1

### **Residential Demand Unit Cost Unit**

Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 12

Gallon per Day: 2

Person: 1

## **Schools (12):**

### **Assessment Distribution**

Residential Only: 12

Includes Non-Residential Uses: 0

### **Residential Differentiation**

Differentiation by Type and Size: 0

Differentiation by Size Only: 0

Differentiation by Type Only: 12

No Residential Differentiation: 0

### **Type Differentiation – Number of Categories**

2 categories: 4

3 categories: 5

4 categories: 2

5 categories: 0

6 categories: 1

### **Service Areas**

One Service Area: 11

Multiple Service Areas: 1

### **Method**

Cost Recovery/Buy-In: 0

Incremental Expansion: 11

Plan-Based: 0

Combination Buy-In/Incremental: 0

Combination Buy-In/Plan-Based: 1

Combination Incremental/Plan-Based: 0

Combination All Three: 0

Indeterminate: 0

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Dollars (replacement cost/expenditure): 36

Square Feet (school and support buildings): 28

Acres (school sites): 23

Relocatable Classrooms: 14

Buses: 3

Support Vehicles: 1

### **Residential Demand Unit Cost Unit**

Student: 11

Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 1

## **Stormwater/Drainage (10):**

### **Assessment Distribution**

Residential Only: 0  
Includes Non-Residential Uses: 10

### **Residential Differentiation**

Differentiation by Type and Size: 1  
Differentiation by Size Only: 0  
Differentiation by Type Only: 3  
No Residential Differentiation: 6

(6 of the fees are assessed per acre of land area as opposed to per dwelling unit)

### **Type Differentiation – Number of Categories**

2 categories: 1  
3 categories: 3  
4 categories: 0  
5 categories: 0

(one methodology calculates each fee separately based on land use and other factors)

### **Service Areas**

One Service Area: 7  
Multiple Service Areas: 3

### **Method**

Cost Recovery/Buy-In: 1  
Incremental Expansion: 2  
Plan-Based: 4  
Combination Buy-In/Incremental: 0  
Combination Buy-In/Plan-Based: 2  
Combination Incremental/Plan-Based: 0  
Combination All Three: 0  
Indeterminate: 1

### **Level of Service Measure Units (number of occurrences may not match total number of fee examples due to multiple LOS standards within a single fee)**

Dollars: 19  
Per Acre: 13  
Per Service Demand Unit (takes into account soil type, etc.): 5  
Per Other Unit: 1

### **Residential Demand Unit Cost Unit**

Acre: 4  
Service Demand Unit: 4  
Equivalent Dwelling Unit (EDU)/Single Family Equivalent (SFE): 2



## **APPENDIX C**

### **BETTER PRACTICES SUMMARY**

Because no impact fee program currently addresses all the considerations raised in this report, this appendix offers a selection of “better practice” approaches to impact fee calculation that are consistent with proportionate-share principles in at least one respect.<sup>1</sup> These practices are not necessarily generalizable to all jurisdictions but they may provide useful insights for practitioners and interests. Best practices are compared to what are termed “questionable” practices for their failure to be sensitive to proportionate share principles. The sources relied upon for this analysis varied greatly, and included both impact fee ordinances and technical reports. Actual implementation of the fee methodologies described below may or may not have occurred in full, and/or fee structures in the example jurisdictions may have changed since the source documents were produced.

### **Parks and Recreation**

#### *Better Practices*

##### Manatee County, FL

- Separates level of service, fee calculation, and revenue distribution into local and county-wide parks categories, allowing for more accurate matching of need, funding, and expenditure (money for local parks goes only toward areas of new development, while revenue for county-wide parks can go toward larger facilities that serve the entire population).
- Credit in fee calculation given for outstanding debt on bonds for park development, along with other revenue sources, ensuring that future development is not double-charged for parks facility development.
- Calculates levels of service and per unit costs separately for park land, park improvements, open space, and support vehicles, allowing for more precise calculation of total costs and per-unit impact.
- Uses replacement cost of current infrastructure in deriving per-improvement-unit costs, but also uses planned improvement costs where appropriate (in this case, for calculating open space level of service and cost), combining incremental expansion and plan-based methods.
- Where considering planned improvement costs for fee calculation, gives credit for resulting increase in level of service, ensuring that current and future development share the burden of improvements evenly.

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<sup>1</sup> Albuquerque, New Mexico and DeKalb County, Georgia may be leading examples of the “next generation” of impact fee programs that advance proportionate-share principles in ways advocated in this report.

- Assesses residential fees based on both housing type and size (number of bedrooms), producing a more equitable distribution of fee burden among residential uses.
- Accounts for the seasonal population fluctuations unique to this jurisdiction and occurring at different rates in different types of residential units by using a seasonal-persons-per-unit conversion in distributing fee shares among residential unit types.
- Uses local demographic data to derive seasonal-persons-per-unit conversion figures for the geographic area covered by the fee (the unincorporated areas of the county).

#### Larimer County, CO

- Separates level of service, fee calculation, and revenue distribution into community and regional parks categories, allowing for more accurate matching of need, funding, and expenditure (money for community parks goes to one of four specific service areas, while revenue for regional parks goes toward larger facilities that serve the entire population).
- Assesses residential fees based on five unit type categories, producing a relatively equitable distribution of fee burden among residential uses.

#### *Questionable Practices*

#### Georgia County

- Uses a single level of service measure, park acreage per dwelling unit, as the basis for fee calculation, although different types of parkland may have very different per acre costs and serve different populations.
- No substantiation given for the adequacy of the existing level of service.
- Fees are assessed upon residential units at a single rate per dwelling unit, regardless of unit type or size, resulting in fees for multi-family units being assessed at a rate almost 36% (\$221 per unit) greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

#### Georgia County

- Uses a single level of service measure, park acreage per dwelling unit, as the basis for fee calculation, although different types of parkland may have very different per acre costs and serve different populations.
- No substantiation given for the adequacy of the existing level of service.
- Fees are assessed upon residential units at a single rate per dwelling unit, regardless of unit type or size, resulting in fees for multi-family units being assessed at a rate more than 51% (\$160 per unit) greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

## **Fire and EMS**

### ***Better Practices***

#### West Valley City, UT

- Level of service measure reflects station building, land, and equipment costs by combining all elements into a single cost per station, which is then converted into a cost per demand unit based on the existing number of stations and current demographics.
- Credit in fee calculation given for outstanding debt on bonds for Fire/EMS facility development, along with other revenue sources, ensuring that future residents are not double-charged for fire/EMS facility development
- Distributes fees among all land use types based on a functional population calculation that takes into account the presence of people over the course of a typical day (a variable considered to be proportional to actual demand for Fire/EMS services), thus ensuring that costs are distributed evenly between residential and non-residential development.
- Assesses residential fees based on four categories of housing type, producing a more equitable distribution of fee burden among residential uses.
- Uses data from the most recent census for the jurisdiction itself in calculating functional population-per-unit figures, capturing a reasonably accurate indicator of true demand.

#### Peoria, AZ

- Sets a level of service measure for station buildings, land, and equipment, in square feet, acres, and vehicles per person/employee respectively, allowing for more precise calculation of total costs and per-unit impact.
- Credit in fee calculation given for outstanding debt on bonds for Fire/EMS facility development, along with other revenue sources, ensuring that future residents are not double-charged for fire/EMS facility development
- Assesses residential fees based on five categories of housing type, producing a more equitable distribution of fee burden among residential uses.
- Uses data from the most recent census for the jurisdiction itself in calculating functional population-per-unit figures, capturing a reasonably accurate indicator of true demand.

**Note:** See also example of Missoula, MT in report.

## *Questionable Practices*

### California City

- Fee methodology does not demonstrate clearly how fee levels are derived from a set level of service standard.
- Demand unit cost calculated by dividing total costs by the total number of dwelling units, meaning that fees cannot be scaled to reflect differences in persons-per-unit, and hence demand, between different unit types
- Assumes a constant number of persons-per-unit among all housing types, and assesses fees at a single level for all dwelling units, resulting in fees for multi-family units being assessed at a rate more than 45% (\$183 per unit) greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

### Georgia County

- Fee methodology does not demonstrate clearly how fee levels are derived from a set level of service standard.
- Demand unit cost calculated by dividing total costs by the total number of dwelling units, meaning that fees cannot be scaled to reflect differences in persons-per-unit, and hence demand, between different unit types
- Assumes a constant number of persons-per-unit among all housing types, and assesses fees at a single level for all dwelling units, resulting in fees for multi-family units being assessed at a rate 33% (\$45 per unit) greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

## **Roads**

### *Better Practices*

#### Sedona, AZ

- Calculates separate fees for two different service areas, reflecting differences in travel demand and planned improvements between the two areas.
- Credit in fee calculation given for outstanding debt on bonds for road construction, along with other revenue sources, ensuring that future residents are not double-charged for road facility development.
- Establishes a transportation level of service (LOS C) as a baseline for fee calculation, including a range of acceptable traffic volume to capacity ratios (0.7-0.79).
- Assesses residential fees based on three categories of housing type, but with three size distinctions within the single-family detached category, yielding a total of five housing categories. These categories incorporate national data from ITE on trip generation rates for different unit types, as well as local data on average trip length for different unit types and sizes, leading to what is presumably a fairly accurate picture of the demand residential development generates on the transportation infrastructure.

#### Manatee County, FL

- Establishes several “benefit districts” within which collected fees must be expended, more closely tying together geographically travel demand and improvements.
- Credit in fee calculation given for outstanding debt on bonds for road construction, along with other revenue sources, ensuring that future residents are not double-charged for road facility development.
- Establishes a transportation level of service (LOS D) as a baseline for fee calculation, including a specific capacity measure of 7,775 vehicles per lane mile.
- Assesses residential fees based on four categories of housing type, but with three size distinctions within each type, yielding a total of twelve different housing categories. These categories incorporate national data from ITE on trip generation rates for different unit types, as well as local data on average trip length for different unit types and sizes, leading to what is presumably a fairly accurate picture of the demand residential development generates on the transportation infrastructure.

## *Questionable Practices*

### California City

- Fee methodology does not demonstrate clearly how fee levels are derived from a set level of service standard; there is therefore no way of knowing if planned improvements (and costs) are justified and if the level of service will increase or decrease, meaning that the burden may be placed unequally on existing and future development.
- Does not appear to give credit for other funding sources, perhaps leading to double-charging of new development.
- Assumes a constant number of trips among all housing types and assesses fees at a single level for all dwelling units.

### California City

- Fee methodology does not demonstrate clearly how fee levels are derived from a set level of service standard; there is therefore no way of knowing if planned improvements (and costs) are justified and if the level of service will increase or decrease, meaning that the burden may be placed unequally on existing and future development.
- Does not appear to give credit for other funding sources, perhaps leading to double-charging of new development.
- Assumes a constant number of trips among all housing types and assesses fees at a single level for all dwelling units.

## **Police**

### ***Better Practices***

#### West Valley City, UT

- Level of service measure reflects station building, land, and equipment costs by combining all elements into a single cost per station, which is then converted into a cost per demand unit based on the existing number of stations and current demographics.
- Credit in fee calculation given for outstanding debt on bonds for police facility development, along with other revenue sources, ensuring that future residents are not double-charged for police facility development
- Distributes fees among all land use types based on a functional population calculation that takes into account the presence of people over the course of a typical day (a variable considered to be proportional to actual demand for police services), thus ensuring that costs are distributed evenly between residential and non-residential development.
- Assesses residential fees based on four categories of housing type, producing a more equitable distribution of fee burden among residential uses.
- Uses data from the most recent census (in this case, 1990) for the jurisdiction itself in calculating functional population-per-unit figures, capturing a reasonably accurate indicator of true demand.

#### Peoria, AZ

- Incorporates data on service calls in determining proportional demand generation among land use types and scales service demand by residential land uses based on persons per unit, and demand by non-residential uses based on trips per unit (a variable considered to be proportional to actual demand for police services).
- For police station buildings, determines that there is excess capacity based on a square-foot-per-person/trip level of service; and appropriately assesses a “buy-in” fee share to new development, while using a more suitable incremental methodology for police vehicles.
- Credit in fee calculation given for outstanding debt on bonds for police facility development, along with other revenue sources, ensuring that future residents are not double-charged for police facility development
- Assesses residential fees based on five categories of housing type, producing a more equitable distribution of fee burden among residential uses.

## *Questionable Practices*

### Georgia County

- Assumes a constant number of persons-per-unit among all housing types, and assesses fees at a single level for all dwelling units, resulting in fees for multi-family units being assessed at a rate almost 68% (\$18 per unit) greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

### Georgia County

- Demand unit cost calculated by dividing total costs by the total number of dwelling units, meaning that fees cannot be scaled to reflect differences in persons-per-unit, and hence demand, between different unit types
- No substantiation given for the adequacy of the existing level of service.
- Fees are assessed upon residential units at a single rate per dwelling unit, regardless of unit type or size, resulting in fees for multi-family units being assessed at a rate almost 36% (\$29 per unit) greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

## **Libraries**

### ***Better Practices***

Peoria, AZ

- Calculates levels of service and per unit costs separately for library site land, library building space, and collections items, allowing for more precise calculation of total costs and per-unit impact.
- Assesses residential fees based on five categories of housing type, producing a more equitable distribution of fee burden among residential uses.

Sutter County, CA

- Calculates levels of service and per unit costs separately for library building space and collections items, allowing for more precise calculation of total costs and per-unit impact.
- Assesses residential fees based on four categories of housing type, producing a more equitable distribution of fee burden among residential uses.

### ***Questionable Practices***

California City

- Fee methodology does not demonstrate clearly how fee levels are derived from a set level of service standard; there is therefore no way of knowing if planned improvements (and costs) are justified and if the level of service will increase or decrease, meaning that the burden may be placed unequally on existing and future development.
- Assumes equal demand among all housing types and assesses fees at a single level for all dwelling units, resulting in fees for multi-family units being assessed at more than 45% (\$124 per unit) greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

California City

- Assumes equal demand among all housing types and assesses fees at a single level for all dwelling units, resulting in fees for multi-family units being assessed at more than 29% (\$85 per unit) greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

## **Schools**

### ***Better Practices***

#### Manchester, NH

- Calculates levels of service, improvement costs, and demand generation separately for primary and secondary school students allowing for more precise calculation of total costs and per-unit impact (especially crucial for school fees because students-per-household figures can vary considerably among dwelling unit type categories).
- Provides detailed substantiation for itemized improvement costs.
- Assesses residential fees based on four categories of housing type, producing a more equitable distribution of fee burden among residential uses.
- In order to achieve more accurate demand generation figures among housing types, uses data from surrounding communities to supplement local data on student generation from two of the types of housing units, since the sample size for those types in the city is small.

#### Calvert County, MD

- Calculates levels of service, improvement costs, and demand generation separately for elementary, middle, and high school students, allowing for more precise calculation of total costs and per-unit impact (especially crucial for school fees because students-per-household figures can vary considerably among dwelling unit type categories).
- Assesses residential fees based on four categories of housing type, producing a more equitable distribution of fee burden among residential uses.

### ***Questionable Practices***

#### New Hampshire City

- Does not calculate levels of service, improvement costs, and demand generation separately for students at different levels (problematic for school fees because students-per-household figures can vary considerably among dwelling unit type categories).
- Assesses residential fees based on only two categories of housing type.

#### North Carolina County

- Assesses residential fees based on only two categories of housing type.

## **Government Buildings**

### ***Better Practices***

Peoria, AZ

- Calculates levels of service and per unit costs separately for building space, communications equipment, and vehicles, allowing for more precise calculation of total costs and per-unit impact.
- Credit in fee calculation given for outstanding debt on related bonds, along with other revenue sources, ensuring that future residents are not double-charged for government building facility development
- Assesses residential fees based on persons-per-unit figures from 2000 census data for five categories of housing type, producing a more equitable distribution of fee burden among residential uses.

Sutter County, CA

- Calculates levels of service and per unit costs separately for building space and building site land, allowing for more precise calculation of total costs and per-unit impact.
- Assesses residential fees based on four categories of housing type, producing a more equitable distribution of fee burden among residential uses.

### ***Questionable Practices***

Arizona City

- Levels of service and demand unit costs calculated by dividing total costs by the total number of dwelling units, meaning that fees cannot be scaled to reflect differences in persons-per-unit, and hence demand, between different unit types.
- Assumes equal demand among all housing types and assesses fees at a single level for all dwelling units, resulting in fees for multi-family units being assessed at a rate 49% (\$73 per unit) greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

Arizona City

- Levels of service and demand unit costs calculated by dividing total costs by the total number of dwelling units, meaning that fees cannot be scaled to reflect differences in persons-per-unit, and hence demand, between different unit types.
- Assumes equal demand among all housing types and assesses fees at a single level for all dwelling units, resulting in fees for multi-family units being assessed at a rate more than 24% (\$94 per unit) greater than if the fees were to be assessed

proportionally based on persons-per-unit across at least four categories of residential units.

## **Water/Wastewater**

### ***Better Practices***

Mount Dora, FL

- Methodology flows logically from a level of service in gallons per day per equivalent residential unit to an improvements unit cost in dollars per gallon per day capacity to a demand unit cost in dollars per equivalent residential unit.
- Assesses residential fees based on both housing type and size (number of bedrooms) for a total of 7 categories, producing a more equitable distribution of fee burden among residential uses.

*Note:* See also example of Scottsdale, AZ in report.

### ***Questionable Practices***

New Mexico City

- Appears to assess the same fee per unit on all residential development regardless of unit type or size, or even meter size.

## **Stormwater/Drainage**

### ***Better Practices***

Sedona, AZ

- Assesses residential fees based on both housing type and size for a total of 5 categories, with a separate runoff coefficient calculated for each category, producing a more equitable distribution of fee burden among residential uses.

Bernalillo County, NM

- Calculates fees individually for each development based on land and development characteristics

### ***Questionable Practices***

Oregon City

- Appears to assess the same fee per unit on all residential development regardless of unit type or size, or even meter size.

## **APPENDIX D**

### **GENERAL BEST PRACTICES GUIDANCE**

This appendix offers general guidance on crafting proportionate share impact fees. It has two parts. The first addresses general design issues such as data, level of service, costs, and identifying appropriate demand units. The second focuses on applications to specific types of facilities.

### **DESIGN GUIDANCE**

#### **Data**

Projections should not assume uniform growth rates in population, housing units, and trips, but rather make use of a mixture of local, regional, and/or national data on trends in residential and employee (night/day) population distribution, persons per housing unit, and trip generation for various land uses. The level of data should, to a certain extent, be a function of the size of the jurisdiction, with local data taking a more prominent role in smaller jurisdictions where trends may diverge from those of the larger region. Where appropriate, fee methodologies should incorporate the latest permitting rates and other local information for tweaking projections from regional or national sources.

#### **Level of Service**

The Level of Service (LOS) for most municipal services should be set on a per-demand-unit basis and based on a policy determination about the appropriate standard for the community. If the LOS is calculated simply as a total replacement cost for the existing service system divided by current population, or as total build-out cost divided by build-out population, some justification should at least be provided as to why this LOS is adequate, and why there is no excess capacity that should be paid for by new growth or deficiency that should be made up with other revenue sources before new growth is charged. Simply using demand unit cost as a level of service standard may not adequately tie the level of service goal to a planning objective, unless the level is based on a separate engineering study that has determined needs and costs. When possible, municipal services should be broken down into component elements and multiple levels of service set for the system to allow for more accurate matching of need, funding, and expenditure.

## **Improvements Unit Cost**

The Improvements Unit Cost should be presented in a manner that establishes costs separate from demand elements (denominators should be per piece of equipment, per square foot of facilities, per vehicle mile capacity, or per gallon capacity, as opposed to per person, per housing unit, per vehicle mile traveled, or per meter). Care should be taken to temporally align cost data and cost projections for the purpose of fee calculation – in other words, cost estimates for future projects should not be based on what a facility cost in the 1970s without adjustment. Local or regional project cost comparison data is preferred over national data because of great regional variations in things like paving costs, land costs, etc. Costs should not include non-capital expenditures, as defined by state enabling act or case law. Particular attention should be paid to the justification of cost figures, as these present an easy opportunity for inflation of fee amounts.

## **Demand Unit Cost**

The Demand Unit Cost should be presented in a way that directly matches demand from new growth to the costs of service expansion or utilization that accommodates that growth. This necessitates that demand units correspond temporally to Improvements Unit Cost data. Demand should be figured in real terms in order to account for discrepancies in demand based on land use type, and local data should be used for this when possible.

## **Geographic Differentiation**

When appropriate, fee methodologies should differentiate between geographic areas within the jurisdiction based on different levels of service and demand characteristics. The use of multiple “benefit districts” can help more closely tie demand for services, fee revenues, and improvements expenditures. Geographic differentiation may also include separate calculation of demand generation for each land use type among different service areas for fees where demand is likely to vary significantly from place to place (road and school fees, especially).

## **Credit Adjustments**

All other sources of funding that will be used toward capital improvements that would otherwise be paid for with impact fee revenue should be noted and accommodated in the fee methodology. For instance, if revenues from a local tax are used to acquire open space, that revenue must be credited against total open space costs when calculating impact fees so that double-charging does not occur. In addition, credit should be given for payment of outstanding debt that financed improvements if these improvements accommodate new growth in all or in part. Net Present Value calculations should be used to make sure that the credit is applied appropriately to new growth over time. Report methodologies should be very clear in outlining how all available revenues match up against all costs for new growth, and account for any discrepancy between the two, including how any increase or decrease in level of service is to be accommodated fairly.

## **Residential Demand Generation**

Fees should be charged proportionally to different housing units based on their actual demand-generation characteristics. In most cases, the number of residents per unit is the most accurate (and readily available) indicator of demand on municipal services, and this indicator usually varies significantly based on both the type and size of residential units. Data showing the variation in demand factors, including persons, students, and vehicles per dwelling unit, are available from the 2000 Census, and are now more easily accessible as a result of this project. Proper delineation between housing types and sizes is especially important in an equity and “equal protection” context. Fee methodologies that do not differentiate between residential uses based on unit type and size are likely to overcharge multi-family development while undercharging development of large, single-family development. A sampling of several fee methodologies that charge the same per-unit fee regardless of type or size indicates that in such cases, fees for multi-family units are assessed at a rate on average about 40% greater than if the fees were to be assessed proportionally based on persons-per-unit across at least four categories of residential units.

## **FACILITY-SPECIFIC GUIDANCE**

### **Parks and Recreation**

With parks and recreation fees, it is especially useful to have multiple levels of service to reflect the many types of improvements and expenditures that go into a parks system. A method employed by many technical reports is to set acres-per-person levels of service for park land and dollars-per-person levels of service for expenditure on park improvements of various kinds, sometimes including a miles-per-person standard for linear trails. This type of breakdown enables a jurisdiction more easily to spread its expenditures from fee revenues evenly across the community and among different recreational uses, and track the provision of different types of facilities in relation to a specific standard over time. Guidelines for such standards are available from the National Recreation and Park Association as well as other sources.

It can also be useful to separate park fees into regional and community parks categories, with fee revenues for regional parks being collected from the entire jurisdiction and available for use toward larger parks that serve the entire jurisdiction, and fee revenues collected for community parks from specific service areas and available for use toward smaller parks serving only that corresponding service area.

Some methodologies choose to assess parks and recreation fees in part to non-residential uses, especially in jurisdictions that have a large population of employees who come in from other jurisdictions and are not residents. This is based on the logic that these non-residents end up using the park system via corporate softball teams and the like, and generate demand above and beyond what is created by residential development exclusively. It is very difficult, however, to come up with a way to accurately distribute assessment of parks fees between residential and non-residential uses in proportion to actual demand on the system. A couple fee methodologies use the percentage of park usage permits granted to non-residential entities as a proxy, but this method is approximate at best.

An interesting practice regarding trail infrastructure is the setting of the level of service at a certain number of trail miles per vehicle miles traveled. This ensures that the community's trail system expands at the same rate as the road system, and assigns a dual recreation/transportation role to trails.

## **Public Safety Services (Fire/EMS, Police, E911)**

As with parks and recreation fees, it is useful to break down public safety fees into multiple levels of service, most commonly station site land, station buildings, and service vehicles/equipment. The first two are usually appropriately measured in acres and square feet, respectively, with the vehicles/equipment standard more likely to be in the form of dollars of expenditure per demand unit given the varying costs of the many types of vehicles (akin to the varying types of parks improvements).

The demand unit used varies widely among fee methodologies nationwide. Most common is persons/jobs, but calls for service and vehicle trips are also used as indicators of real demand for public safety services. These indicators can aid a jurisdiction in capturing true demand and accurately distributing it among land use types in new development, but the lack of data linking these more specific demand units to specific uses within a jurisdiction becomes a barrier, especially to delineation by residential unit type and/or size. For this reason, if an alternative demand indicator like calls for service is used but information on the distribution of the demand indicator among specific land uses is not available, it should be combined with another demand indicator like persons per unit in order to distribute the fee burden across specific land use categories. For example, a jurisdiction may know that 75% of service calls come from residential land uses but not have any information about the share of those calls from single-family units, multi-family units, etc. Rather than simply taking 75% of the total system costs and dividing that by the total number of dwelling units, that 75% share can instead be distributed proportionally to different types and sizes of residential units based on the persons-per-unit averages for those categories within the jurisdiction.

As an alternative to using calls for service as a demand indicator, a jurisdiction may want to consider calculating “functional population” figures for specific land uses. This eliminates some of the problems with call for service data while still capturing a more accurate indicator of demand and allowing for easier distribution between residential and non-residential uses. Persons per residential unit and employees per 1,000 square feet of non-residential space are not entirely comparable, as a person likely spends more time within a residence than at an office; functional population calculations account for this difference.

## **Transportation**

Methodologies for road impact fees often unwittingly confuse road demand and road capacity when setting a level of service standard and moving from that standard to a demand unit cost. The best methodologies make it clear that a level of service for roads is essentially a ratio of demand (trips or vehicle miles traveled) to capacity (lane-miles or vehicle miles of capacity). Keeping this ratio at a near-constant standard thus dictates, in combination with a cost per lane-mile or VMC, the expenditure necessary to accommodate growth in demand. If a fee methodology does not use this ratio as a starting point for fee calculation, then, it is likely to be lacking in terms of establishing a true level of service and substantiating the costs of planned projects in relation to that level of service.

Transportation fees are especially good candidates for differentiation based on geographic area. Different parts of a community are likely to have vastly different transportation profiles based on the mixture and density of land use, and the availability of alternative transport modes. For instance, residential development in a city center will likely have much less of an impact on the road network than it would in an outlying area, because the urban core residents will likely take fewer and shorter automobile trips. Availability of trip data from different parts of the community is probably a prerequisite to incorporating geographic zones into a transportation impact fee methodology, but more times than not this information is available in some form or another. In addition, further research by this project team may lead to the development of national guidance for jurisdictions to use in determining the effects of development location and configuration on vehicle trips. This could be used in conjunction with ITE data on trip generation by land use category (which most fee methodologies already use) to even more accurately tie fee amounts to true demand on transportation infrastructure.

## **Water/Wastewater**

As with roads fees, demand and capacity are often confused in the presentation of a level of service. In both instances, the system level of service essentially takes the form of a demand-to-capacity ratio; in the case of water and wastewater fees, however, the ratio is usually just 1:1. So in essence, the fee is derived directly from the demand-per-unit figure, most commonly in average gallons per day per person, a figure that should be readily available. Methodologies that use peak rather than average figures as a baseline may lead to inequities in residential fees because weather-correlated peaks in water consumption are driven much more by single-family detached development (with water needs for landscaping) than by other unit types.

The majority of fee methodologies assess water and/or wastewater fees on development on a per-meter basis, with the fee scaled according to the size of the meter. In theory, this method captures variation in demand, as larger meters enable greater consumption of the resource and are therefore assessed impact fees at a greater rate, usually scaled using American Water Works Association capacity figures for meters of different sizes.

However, even within a class of residential units with the same size meter, there is substantial variation in actual consumption of water/wastewater capacity between units of different type and size. It therefore makes sense, in the interest of equity, to combine a meter-size scale with unit type and/or size categorizations when allocating demand share and assessing fees.

### **Stormwater/Drainage**

The true impact of development on stormwater/drainage systems comes down primarily to land coverage. Therefore, fee methodologies that do not differentiate between different land uses but simply assess fees on a per-acre basis are likely to be way off the mark in terms of tying fee rates to actual demand. At the other extreme are jurisdictions that calculate a drainage factor for each individual development, a procedural burden that may not be realistic for some jurisdictions to take on. In between is the development of an average land coverage factor for several categories of land use, including residential unit types. Fee rates can thusly be scaled to roughly approximate actual demand. In addition, jurisdictions with widely varying soil types should incorporate multiple service areas to reflect the difference in permeability from one part of town to another.

### **Libraries/Public Buildings**

The most challenging aspect of development methodologies for library and public building fees is distributing the fee burden among various land uses. The demand unit used is normally residents and/or employees. It is not necessarily appropriate to assume that a resident and an employee have equal demand on the system, however, and unlike public safety fees for which service call data can be used to more appropriately distribute demand between residential and non-residential uses, there are few good indicators of true demand available. Functional population is not necessarily the solution, either, because a person's presence in a residence or workplace is not likely to be an indicator of demand for library and public building infrastructure to the extent it might be for public safety infrastructure. Perhaps the greatest considerations, then, should be equity and fairness, making it all the more important that unit type and size are considered when assessing fees on residential development.

### **Schools**

Most jurisdictions have data on student population rates for students of different grade levels among different types of residential units, and such statistics are also available, even to the level of unit size, using data from the Census at PUMS-level geography. There is, therefore, little excuse for school impact fee methodologies not to factor in unit type and size when calculating fees on residential development.

## A Word about Costs

This report has focused on impact fees, with minimal attention to the cost of the components in the Capital Improvement Program budgets that the fees are based upon. Three elements need to be addressed, none of which are strictly prohibited by impact fee law and practice but all should be considered especially by development interests involved in the impact fee process.

The first addresses the *quality* of new improvements better compared to existing improvements. For the most part they should be, reflecting architectural, construction, and other enhancements to the functionality of the improvement. On the other hand, some improvements may seem to some excessive. A new fire station in a California city, for example, has granite counters, two SubZero refrigerators, and a media/entertainment room. The station was paid for by impact fees, and the CIP included these amenities even though none are in existing fire stations. Whether these improvements may be challenged and disqualified from impact fee calculations is a legal question but the equity implications of these improvements as they affect new development need to be considered.

Second, sometimes the cost of expanding facilities is borne mostly by new development but the quality of those facilities is qualitatively difference from similar existing facilities. For example, many Arizona communities have needed to expand their general government facilities because of growth, yet the new facilities were built to a quality standard that was far superior to existing city halls. Because all residents use the new facilities a more equitable impact fee calculation would add the replacement cost of existing city hall facilities to the expansion cost then divide by total square feet and assess new development based on the blended or weighted cost of existing and new. This approach applies only to those facilities that serve all development equally. It may not be appropriate for roads, utilities, parks, public safety and other facilities where costs vary by location and local development factors. For example, the cost of expanded water supply and treatment facilities including new water rights, extended trunks, new standpipes and the like to serve newly annexed areas should probably be apportioned to that area.

Third, as communities grow demands for new amenities also typically grow. The impact-fee share of the cost of a new performing arts center where none exists before would need to be reduced by the share of the facility benefiting existing development. (The rationale is discussed in Appendix A.)

## **APPENDIX E**

### **IMPACT FEE PARITY AMONG COMMUNITIES**

When it comes time for elected officials to decide whether or not to impose impact fees, they frequently want to know how the proposed fees compare to other communities. This appendix provides some guidance to local officials in this regard. The impact fee database compiled for this study provides an interesting comparison of impact fee amounts per apartment unit. Data shown in the following three tables are from impact fee studies, not the actual fee schedules adopted by each jurisdiction. The dollar amounts represent what each jurisdiction could have imposed, which might be greater than the actual fee schedule because elected officials may have deleted entire fee categories or adopted some percentage of the maximum impact fee amounts.

#### **Total Impact Fees for All Types of Infrastructure**

As shown in Table E-1, there is tremendous variation in total impact fee amounts currently being imposed on apartment units. Total impact fees for all types of infrastructure range from just over a hundred dollars to more than \$30,000 per housing unit. The wide discrepancy in the total fee amount is mainly due to the inclusion or exclusion of fees for water and sewer capacity. Some communities adopt water and sewer impact fees, while others adopt one-time charges for utility capacity under various legal umbrellas as allowed by state legislation.

Another difficulty in accurately reporting fee amounts for water and sewer capacity is the common practice of imposing utility fees by water meter size. Correctly determining the appropriate water meter size for an apartment building requires an engineering analysis that considers the number of units in the building, the number of plumbing fixtures in each unit and the configuration of the building (e.g. high-rise vs. low-rise construction). As a proxy for the water and wastewater impact fees per apartment unit, this study used the published amount for the smallest meter size.

Based on a national survey in 2003, the community with the highest impact fees is Gilroy, California, where each apartment unit requires an up-front payment of almost \$36,000 for water, sewer, roads and other general government facilities. (In 2006 the figure was closer to \$50,000.) The impact fee database includes five other communities in California, but total impact fees in these jurisdictions are less than \$10,000 per housing unit. The second highest jurisdiction in the list, West Linn, Oregon, imposes fees for water, sewer, roads and parks.

Near the top of the total impact fee ranking is a group of communities located in Maricopa County, Arizona (i.e. the Phoenix metropolitan area). Impact fee totals are relatively consistent for new apartment units constructed in Gilbert, Avondale, Surprise, Buckeye and Glendale. With the exception of these Arizona communities, impact fee amounts do not cluster by geographic area.

The average impact fee for the 65 jurisdictions in the database is \$3,766 per apartment unit. Because of the top-end outliers of Gilroy and West Linn, the median impact fee is lower at \$2,471 per housing unit. Communities at the low-end of the impact fee ranking only impose an impact fee for one type of infrastructure. For example, the City of Las Vegas only collects an

impact fee for traffic signals. Most of the urban development in the area commonly know as Las Vegas is actually located in the unincorporated area of Clarke County, with much of the infrastructure provided by special improvement districts.

**Table E-1. Total Impact Fees per Apartment**

Jurisdiction	Total
City of Gilroy	\$35,899
City of West Linn	\$14,902
Town of Gilbert	\$11,872
City of Avondale	\$9,334
City of Surprise	\$8,193
City of Lincoln	\$7,629
Town of Buckeye	\$7,298
City of Glendale	\$6,613
City of San Diego	\$6,516
Lee County	\$6,416
City of Yucaipa	\$6,232
City of Rio Rancho	\$5,590
City of Mount Dora	\$5,316
City of Denton	\$5,036
Queen Anne's County	\$4,504
City of Peoria	\$4,492
City of Calimesa	\$4,232
City of Salem	\$4,137
City of Bentonville	\$4,083
Frederick County	\$3,686
Bernalillo County	\$3,607
Sandy City	\$3,545
Manatee County	\$3,534
Osceola County	\$3,475
City of Mesa	\$3,352
Orange County	\$3,298
City of Tigard	\$3,017
Yuba City	\$2,927
Town of Fountain Hills	\$2,886
Durham County	\$2,851
Charles County	\$2,791
City of Sedona	\$2,666
Calvert County	\$2,471
Palm Beach Gardens	\$2,464
Town of Fremont	\$2,438
City of Chandler	\$2,418
Town of Cary	\$2,383
Rockdale County	\$2,375
Larimer County	\$2,217
Sutter County	\$1,879
City of Smyrna	\$1,798
Town of East Greenwich	\$1,784
City of Goodyear	\$1,755
Cherokee County	\$1,690
Town of Manchester	\$1,689

**Table E-1. Total Impact Fees per Apartment  
-- continued--**

Forsyth County	\$1,589
City of Tucson	\$1,416
Conway	\$1,218
City of Fayetteville	\$1,205
Clay County	\$1,178
Collier County	\$1,061
City of Post Falls	\$1,061
City of Delaware	\$1,018
City of Atlanta	\$914
Seminole County	\$825
Pierce County	\$792
Pasco County	\$772
City of Bothell	\$762
City of Kennesaw	\$700
West Valley City	\$693
New Castle County	\$609
City of La Vergne	\$606
Lake County	\$592
City of Sandpoint	\$372
City of Las Vegas	\$128
Number of Jurisdictions	65
Average Fee	\$3,766
Median Fee	\$2,471

**Road Impact Fee Parity**

In the impact fee database developed for this study, road impact fees were the most common “big-ticket” impact fee. The rank-ordered listing of road impact fees in Figure 2 includes multiple listing for several jurisdictions with either “progressive” fee schedules that vary by unit size, or multiple residential categories for attached housing units. An example of the former is Manatee County, Florida, where road impact fees are differentiated for small, medium and large multi-family units (defined by number of bedrooms). An example of fees that vary by type of housing is Bernalillo County, New Mexico, where the fee schedule differentiates low-rise from high-rise apartments.

For the road impact fees listed in Table E-2, the average fee is \$1,722 for an apartment. The median road impact fee is \$1,180 per housing unit. For jurisdictions where impact fees vary by geographic area, we have only listed the highest road impact fee imposed by the jurisdiction.

**Table E-2. Rank-Order Listing of Road Impact Fees**

Jurisdiction	State	Fee Type	Service Area(s)	ResLandUseType	ResFee/DU
City of Gilroy	CA	Roads	entire city	Multi-Family	\$10,308
City of Yucaipa	CA	Roads	entire city	All Residential	\$5,287
Manatee County	FL	Roads	Unincorporated Areas of County	All Other-Large	\$4,588
Lee County	FL	Co & State Roads	Entire County	Multi-Family	\$4,485
Osceola County	FL	Roads	District 5 (including county-wide fee)	Apartment	\$3,475
Manatee County	FL	Roads	Unincorporated Areas of County	All Other-Medium	\$2,662
City of West Linn	OR	Roads	entire city	Multi-Family	\$2,589
City of Peoria	AZ	Roads	North Peoria	Multi-Family	\$2,489
Manatee County	FL	Roads	Unincorporated Areas of County	All Other-Small	\$2,410
Town of Cary	NC	Roads	Northwest	Multi-Family	\$2,383
City of Salem	OR	Roads	Entire City	Apartment	\$2,054
City of Lincoln	NE	Roads	City-wide except urban area	Multi-Family	\$1,955
Bernalillo County	NM	Roads	entire unincorporated county	Apartment	\$1,902
Bernalillo County	NM	Roads	entire unincorporated county	Low-Rise Apartment	\$1,779
City of San Diego	CA	Roads	Serra Mesa Community	All Residential	\$1,582
Sandy City	UT	Roads	entire city	Multi-Family	\$1,540
Larimer County	CO	Regional & Nonreg Roads	Entire County	Multi-Family	\$1,326
City of Chandler	AZ	Roads	Arterial Street Fee Area	Multi-Family	\$1,251
Bernalillo County	NM	Roads	entire unincorporated county	High-Rise Apartment	\$1,197
Calvert County	MD	Roads	North	Apartment	\$1,162
Yuba City	CA	Roads	Yuba City Urban Area	Multi-Family	\$1,096
City of Rio Rancho	NM	Roads	entire city	Multi-Family	\$1,003
City of Smyrna	TN	Roads	entire city	Multi-Family	\$896
Palm Beach Gardens	FL	Roads	Entire City	Multi-Family	\$843
Conway	AR	Roads		Multi-Family	\$771
City of Avondale	AZ	Roads	entire city	Other Residential	\$604
Seminole County	FL	Roads	North District	Apartment	\$566
City of Sedona	AZ	Roads	entire city	Multi-Family	\$534
City of Atlanta	GA	Arterial Roads	entire city	Multi-Family	\$470
Rockdale County	GA	Roads	Entire County	Multi-Family	\$434

**Table E-2. Rank-Order Listing of Road Impact Fees – continued -**

City of Glendale	AZ	Roads	Entire City	Other Residential	\$372
Frederick County	MD	Roads	Entire County	Other Residential	\$298
West Valley City	UT	Roads	entire city	Multi-Family	\$292
City of Post Falls	ID	Roads	entire city	Multi-Family	\$195
Cherokee County	GA	Roads	entire county	Apartment	\$174
Town of Buckeye	AZ	Roads	None Specified	Other Residential	\$173
City of Calimesa	CA	Roads	Entire City	Multi-Family	\$152
City of Las Vegas	NV	Traffic Signals	entire incorporated area	Multi-Family	\$128

38 = number of records

average fee = \$1,722

median fee = \$1,180

### Park Impact Fee Parity

Our final look at impact fee parity is focused on the most common type of residential impact fee. Under the park impact fee label, we have included recreation buildings, trails and open space. West coast communities in Oregon and California top this list due to high level of service standards and land prices.

The park impact fee table presents the data using the same criteria as the above road impact fee table. For jurisdictions with park fees that vary by geographic area, only the highest fee amount is shown. In contrast, we include multiple records for jurisdictions that vary park fees by housing type and/or size. An example of the latter is Collier County, Florida, where the fee schedule includes three size thresholds indicated by the floor area of the multi-family unit. Park impact fees listed in Table E-3 average \$1,081 per apartment unit, with a median fee of \$779 per unit.

**Table E-3. Rank-Ordered Listing of Park Impact Fees**

Jurisdiction	State	Fee Type	Service Area(s)	ResLandUseType	ResFee/DU
City of West Linn	OR	Parks and Recreation	entire city	Multi-Family	\$5,817
City of San Diego	CA	Parks and Recreation	Serra Mesa Community	All Residential	\$3,951
City of Tigard	OR	Parks and Recreation	entire city	Multi-Family	\$3,017
Town of Fountain Hills	AZ	Parks, Rec, OS	Entire Town	All Residential	\$2,388
City of Calimesa	CA	Parks and Recreation	Entire City	All Residential	\$2,259
Town of Gilbert	AZ	Parks and Recreation	entire city	Multi-Family	\$2,036
City of Sedona	AZ	Parks and Recreation	entire city	Multi-Family	\$1,914

**Table E-3. Rank-Ordered Listing of Park Impact Fees – continued --**

Town of East Greenwich	RI	Parks, Rec, OS	Entire City	Other Residential	\$1,615
City of Salem	OR	Parks and Recreation	Entire City	Multi-Family	\$1,487
Bernalillo County	NM	Parks, Rec, OS	Northeast	Multi-Family	\$1,483
Collier County	FL	Parks and Recreation	entire unincorp county	MF >1700 sq ft	\$1,374
Palm Beach Gardens	FL	Parks and Recreation	Entire City	Multi-Family	\$1,337
City of Peoria	AZ	Parks and Recreation	Entire City	Multi-Family	\$1,111
Rockdale County	GA	Parks and Recreation	Entire County	All Residential	\$1,075
Collier County	FL	Parks and Recreation	entire unincorp county	MF 1000-1700 sq ft	\$1,061
Town of Buckeye	AZ	Parks and Recreation	Entire Town	Other Residential	\$1,011
City of Bothell	WA	Parks and Recreation		Multi-Family (3-4 Units)	\$987
City of Surprise	AZ	Parks and Recreation	entire city	SFA/Multi-Family	\$948
Yuba City	CA	Parks and Recreation	Yuba City Urban Area	Multi-Family	\$948
Collier County	FL	Parks and Recreation	entire unincorp county	MF <1000 sq ft	\$941
Larimer County	CO	Parks (Reg, Com, Neigh)	Berthoud & Ft. Collins	Multi-Family	\$891
Forsyth County	GA	Parks and Recreation		All Residential	\$869
Lee County	FL	Parks and Recreation	Unincorp County	Multi-Family	\$826
Pierce County	WA	Parks and Recreation		All Residential	\$792
City of Glendale	AZ	Parks and Recreation	Entire City	Other Residential	\$790
Frederick County	MD	Parks and Recreation	Unincorp area	Other Residential	\$768
Sandy City	UT	Parks, Rec, Trails	Entire City	Multi-Family	\$764
City of Bothell	WA	Parks and Recreation		Multi-Family (5+ Units)	\$762
City of Delaware	OH	Parks and Recreation	entire city	Other Residential	\$736
City of Kennesaw	GA	Parks and Recreation	entire city	All Residential	\$700
City of Post Falls	ID	Parks and Recreation	entire city	Multi-Family	\$689
City of Mesa	AZ	Parks and Recreation	Entire City	Multi-Family	\$683
City of Avondale	AZ	Parks and Recreation	entire city	Other Residential	\$669

**Table E-3. Rank-Ordered Listing of Park Impact Fees – continued --**

City of Smyrna	TN	Parks and Recreation	entire city	Multi-Family	\$631
City of Mount Dora	FL	Parks and Recreation	entire city	Multi-Family	\$592
City of Chandler	AZ	Parks and Recreation	Entire City	Multi-Family	\$586
Queen Anne's County	MD	Parks and Recreation	entire county	Other Residential	\$583
City of Rio Rancho	NM	Parks and Recreation	entire city	Multi-Family	\$564
City of Bentonville	AR	Parks and Recreation	entire city	Other Residential	\$547
City of La Vergne	TN	Parks and Recreation	entire city	Multi-Family	\$493
Conway	AR	Parks and Recreation		Multi-Family	\$447
Cherokee County	GA	Parks and Recreation	entire county	All Residential	\$443
City of Fayetteville	AR	Parks and Recreation	entire city	Multi-Family	\$393
Manatee County	FL	Parks and Recreation	Unincorporated Areas of County	Other Residential	\$388
City of Sandpoint	ID	Parks and Recreation	entire city	All Residential	\$372
West Valley City	UT	Parks and Recreation	entire city	Multi-Family	\$364
City of Atlanta	GA	Parks and Recreation	Northside	Multi-Family	\$342
New Castle County	DE	Parks and Recreation	Entire County	Other Residential	\$225
City of Lincoln	NE	Parks and Recreation	Periphery only	Multi-Family	\$190
Lake County	FL	Parks and Recreation	entire county (3 benefit districts)	Multi-Family	\$180

50 = number of records

average fee = \$1,081  
 median fee = \$779



## **APPENDIX F PER CAPITA COEFFICIENTS**

Calculating proportionate share impact fees based on the type and size of unit can be accomplished by using census data from 2000. This appendix includes a review of such data and by reference data available on a CD for all public use microdata areas within each state. Two sets of data are provided: census data by place and county for each state and more detailed Public Use Microdata Sample data.

### **Census Data**

Special File 3 (SF-3) can allow census data to be disaggregated to very small geographies but there are limitations. Although such data can be used to establish persons per unit by unit type at a very small level of analysis, it does not allow for such analysis of public school children by unit type. The CD disaggregates a variety of data potentially useful for impact fee analysis to level of counties and places for every state. More detailed data are available through the Public Use Microdata Sample with some limitations.

### **Public Use Microdata Sample Data**

As described by the census, Public Use Microdata Samples (PUMS) are computer-accessible files containing records for a sample of housing units, with information on the characteristics of each housing unit and the people in it. Within the limits of sample size and geographical detail, these files allow users to prepare virtually any tabulations they require. Identifying information has been removed to protect the confidentiality of the respondents. The samples can be extended to analysis of the whole United States for many purposes. Comparative analysis across different groups is possible using the PUMS data.

PUMS datafiles contain records representing 1 in 1000, 1 percent, and 5 percent samples of the housing units in the United States and the persons in them. Each PUMS file provides records for states and some of their geographic levels. Of interest to this report is the 5% sample which organizes PUMS data for every state and various subdivisions into Public Use Microdata Areas (PUMAs), each with at least 100,000 persons. These PUMAs were primarily based on counties, and may be whole counties, groups of counties, or places. When these entities have more than 200,000 persons, PUMAs can represent parts of counties, places, etc. None of these PUMAs on the sample crosses state lines.

While PUMA data are more detailed than census data, their disadvantage is that they are not tailored for areas smaller than about 100,000 people.

The CD includes PUMA maps for each state along with an electronic workbook. The workbook includes two worksheets for each state, one for persons and the other for public school children per residential unit. All units are considered, not just occupied ones. This helps adjust for vacancy and second-home considerations. The unit types include detached, townhouse – called attached, multi-family (which can include apartments and condominiums), and manufactured homes.

Where better locally-derived data are available it is recommended that such be used but in their absence it is recommended that these data be considered in crafting impact fees.

## **APPENDIX G: Alternative Facility Financing Options**

This appendix reviews major alternative sources of revenue for public facilities and includes a table showing the theoretically preferred funding choices for different types of facilities. The theoretically preferred choices may not be politically feasible or properly enabled through state legislation, however, which is why impact fees are often viewed as the preferred choice even if theoretically inferior to alternatives.

There are three very broad ways to raise revenue for public facilities: taxes, grants, leases and user fees, development exactions, and impact assessments. These are reviewed below. Often, impact fees are used as a kind of last resort because local governments find raising taxes to expand facilities to accommodate new development is politically unpopular or prohibited through state legislation that establishes spending caps or tax limits. On the other hand, special assessment districts may be part of the solution; this option is also reviewed below.<sup>1</sup>

### **Taxes, Grants, Leases and User Fees**

*General Taxes.* General taxes are appropriate where there are “free-rider” problems, such as in parks and public safety where nonresidents who do not pay for the service receive the benefits, and where the general public well-being is enhanced such as education and libraries.

A common way in which general taxes are used to finance public facilities is through *general obligation* (GO) bonds. Indeed, GO bonds are the most traditional form of debt issuance by state and local governments. These bonds are also referred to as “full faith-and-credit bonds” because they are secured by the issuer’s pledge to levy the taxes necessary to make timely payments of principal and interest. These payments are commonly referred to as “debt service” payments.

A GO bond is essentially a loan taken out by a state or local government against the value of the taxable property in its jurisdiction. Unlimited-tax GO bonds legally obligate the municipality to levy taxes on all assessed property within its jurisdiction at whatever level necessary to meet the debt service payments. By contrast, limited-tax GO bonds are backed only by specific revenue sources, such as a sales tax.

*Dedicated Taxes.* A good example of a dedicated tax is the gasoline tax where revenues go exclusively for enhancing roads including in some instances transit normally under the argument that higher transit use preserves road capacity. There are examples of other dedicated taxes such as California’s per-square-foot tax on new buildings to help finance

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<sup>1</sup> See *Building for Tomorrow: Innovative Infrastructure Solutions*, National Association of Home Builders (Washington), 2003.

local schools and Florida's real estate transfer tax where a share is dedicated to acquiring environmentally sensitive land by the state.

*Bonded Federal Grant Revenue.* In the case of highways, the federal government enables states to pledge a share of future federal highway funding toward payment of debt service on a long-term bond issue. Bonds repaid with future federal funds are commonly referred to as Grant Anticipation Revenue Vehicles, or "GARVEE bonds."

*Long-Term Leases.* Short of buying facilities, communities may be able to lease certain public facilities from private investors and when the lease expires take ownership of it.

*Tax-exempt municipal lease financing*, for example, is an effective way for jurisdictions to finance capital improvement projects or to purchase essential equipment. Although typically used for equipment acquisitions, lease financing has become an increasingly important component of both state and local governments' capital improvement programs. The purposes for which a jurisdiction may lease property will depend upon the provisions of applicable state law. This type of financing is now used in at least 33 states. Schools, courthouses, prisons, libraries, parking facilities, municipal buildings, recreational facilities, and wastewater treatment systems have been financed using municipal leases.

*Certificates of participation (COPs)* are the most commonly used form of municipal lease obligations. Like other forms of lease financing, COPs provide jurisdictions with an alternative financing mechanism to cash purchases or bonded debt. COPs have become an increasingly important financing mechanism for jurisdictions because they do not require voter approval and do not count toward a jurisdiction's debt limitations. Like other forms of lease financing, the issuer's lease payments are subject to annual appropriations.

*User Fees.* User fees are the most direct way in which to connect the benefit of the service to those who pay for it. Water and wastewater meter connections and subsequent charge by volume of use may be the best example of such a direct connection because if one does not pay to connect to public water one does not receive it. Indeed, some of the earliest court cases surrounding impact fees related to that portion of the water and wastewater connection fee used to finance capital expansion.

*Revenue bonds* are a common way to leverage user fees into acquiring public facilities. The security for revenue bonds is a pledge of a specific revenue stream such as user fees. Since they are not backed by the issuing jurisdiction's taxing power, revenue bonds are not included in the usual debt limitations on the issuance of GO bonds. Another advantage of revenue bonds is that they typically do not require voter or legislative approval. Because of the limited nature of the issuer's repayment obligation, however, revenue bonds typically bear a higher interest rate than general obligation bonds.

## **Development Exactions**

*Mandatory Dedication Requirements.* Mandatory park or school dedication requirements with in-lieu fee provisions typically apply only to residential subdivisions and are based on the number of dwelling units proposed. Requirements based on a percentage of site area have been overturned by the courts, since they do not recognize the differing service demands created by low- and high-density developments. Land dedication usually is required at the subdivision stage of the development process.

Land-dedication exactions have the advantage of being closely related to on-site needs created by new development. They have a long history of use and are generally accepted as legitimate exercises of local police power. They treat all residential subdivisions similarly and are relatively simple to administer.

A major drawback, however, is that they only cover the cost of land and make no contribution toward the cost of new capital improvements required by new development. In addition, since they are generally administered through the subdivision ordinance, developments not requiring land subdivision, such as apartments or previously platted land, are often exempted from the requirements.

*Negotiated Exactions.* Monetary or in-kind exactions are generally the result of open-ended negotiations between the developer and the local government, rather than from the application of a previously defined methodology. They may be imposed at any stage of the development process, particularly during requests for regulatory approvals, such as zoning, special permits, or planned unit developments, where the local governing body has broad discretionary authority. Such exactions typically involve public improvements in close proximity to the development.

While negotiated exactions are standard procedure in many communities, they are tightly regulated in some states. In North Carolina and Virginia, for example, the state governments have authorized two kinds of zoning districts, general use districts and conditional use districts. Local governments cannot require developer contributions as a condition of granting general use zoning, and can accept proffers only when conditional use zoning is requested. In Virginia, jurisdictions outside of Northern Virginia and the Eastern Shore that have not been expressly granted conditional zoning authority are severely limited by the types of proffers that may legally be accepted.

In comparison with land-dedication requirements, negotiated exactions have the advantage that they may cover the capital cost of public facilities in addition to land costs. Since such exactions are based on the specifics of an individual development proposal, they can address public-facility improvement needs, such as driveway turning lanes, that are directly related to the development.

Another drawback of negotiated exactions is that they lack the attributes of predictability and equity that gained park dedications their early and wide acceptance. The amount of

the exaction may depend on accidents of geography, such as the amount of land owned by a developer that happens to correlate with right-of-way needs, or on the political or bargaining skill of the applicant. Small developments, although they may cumulatively result in the need for significant capital improvements, often escape such exaction requirements because individually they are not capable of making significant contributions. Negotiations are often time-consuming and expensive for both the developer and the local permitting authority. Roadway exactions, for example, may be based on a traffic impact study required for each major development project.

*Development Agreements.* A variant of both these approaches is the development agreement that is negotiated between the developer and the local government. Unlike those two alternatives, development agreements cover a broad range of facilities (and other issues), provide for timing, phasing, and financing schedules, establishes obligations of both parties, and helps to settle issues that may otherwise have emerged in the future. Once in place, development agreements provide certainty to both the developer and local government on what to expect as the project builds out. Development agreements are used widely throughout California and Florida, and are seen increasingly in other growing states (Porter and Marsh 1989).

### **Impact Assessments**

Impact assessments are scheduled charges made against new development for the purpose of financing public facilities. Impact fees are obviously included but so are impact taxes and dedicated real estate transfer taxes.

*Impact Fees.* Impact fees (also known as development impact fees, system development charges, and connection charges) are charges levied on new development to pay for the construction of off-site capital improvements that benefit the contributing development. Impact fees are typically assessed using a fee schedule that sets forth the charge per dwelling unit or per 1,000 square feet of nonresidential floor space. Impact fees are one-time, up-front charges, with the payment usually made at the time of building permit approval, although some jurisdictions allow extended payments over a period of years.

Impact fees are a political response to the notion that development should pay its own way. In some communities, impact fees are actually considered a pro-growth tool because of their ability to defuse rising no-growth sentiments, ensure facility adequacy, and facilitate development approval. In addition, because they are typically used as a replacement for negotiated exactions, impact fees add speed and predictability to the development process. Impact fees are also more equitable than informal systems of negotiated exactions and are likely to generate considerably more revenue.

Impact fees can be used to fund a wider variety of services and types of facilities than is possible with exactions or special districts. Unlike dedication requirements that only cover land costs, impact fees can be used to cover the full capital cost of new facilities. Impact fees can also be structured to require new development to buy into service delivery systems with existing excess capacity, thus recouping prior public investments

made in anticipation of growth demands. Recoupment of prior investments is generally not possible with other types of exactions.

The requirement that impact fees be spent to benefit the fee-paying development is typically met by earmarking revenues for expenditure in the zone in which they are collected. The requirement that fee revenues be spent within a reasonable period of time following fee payment imposes an additional constraint. However, proper design of benefit zones, provisions for pooling revenues from adjacent zones, and supplementing impact fee revenues with funds from other sources can overcome obstacles to successful fee implementation.

Sometimes impact fee revenue is pledged to support bonded debt service incurred to provide facilities needed to accommodate growth. In these cases, bond covenants may call for using impact fee revenue first for this purpose but to assure timely and adequate payment of debt service the fiscal base of the community is also pledged to the extent needed.

The primary strengths of impact fees include applicability to a wide range of public services, ability to promote efficient development patterns, predictability for both public and private sectors, acceptability due to a clear linkage with the needs of new development, and some ability to help with bonded debt service. Their limitations include inability to fund operating costs, lack of expenditure flexibility, and dependence on construction cycles.

*Impact Taxes.* A development impact tax, also called an improvement tax, is a tax on new construction, usually assessed at the time of application for a building permit. Impact taxes are generally based on the value of new improvements, and tend to be more popular than other kinds of taxes because they are levied on new construction rather than existing development. However, reroofing, remodeling, and alterations to existing structures are also subject to such a tax. Even in a high-growth community like San Jose, California, over one-third of total building permit valuation is for such remodeling activities.

Unlike impact fees, impact taxes need not be based on the cost of facilities needed to serve the development, and the special studies required to justify impact fees are not required. In addition, revenues from such taxes may be spent in any way the local jurisdiction sees fit, subject to the provisions of state enabling legislation.

However, impact taxes may be perceived as inequitable if the tax revenues are not earmarked to provide facilities necessitated by new development. In practice, such earmarking often occurs for political reasons, somewhat diluting the flexibility of revenue expenditures.

Impact taxes are not used widely, however. In light of Proposition 13 in 1978, which limited local government revenue substantially, many California communities since then have resorted to impact taxes as a way to finance public facilities. Indeed, the legislature

also enabled impact taxes for schools affecting all new development and not just residential. California is not quite alone. Oregon enables local governments to impact a transportation impact tax and Tennessee enables an “adequate public facilities” tax where needed to match infrastructure to new development demands.

Real Estate Transfer Taxes. Real estate transfer taxes are levied on real estate transactions. While impact taxes generally are based only on the value of new improvements, real estate transfer taxes are assessed on sales price, which includes the value of both land and improvements. As with all taxes, real estate transfer taxes cannot be adopted by local governments without state enabling legislation. Real estate transfer taxes are not dependent on new development, but rather on an active real estate market. Transfer tax revenues are more predictable than revenues from impact fees or exactions and hence more suitable for bond financing. However, to solve infrastructure problems, there must be an explicit dedication of such taxes for infrastructure.

Table G-1 shows the theoretically preferred financial alternative for specific classes of public facilities. In most cases, impact fees are the second- or third-best options. In many cases general taxes are the best method theoretically but politically infeasible.

**Table G-1. Theoretically Preferred Public Facility Financing Alternative**

Water	Impact Fees
Wastewater	Impact Fees
Stormwater	Special assessment based on impervious surface
Parks	General taxes
Recreation Centers	General taxes and user fees
Library	General taxes
Fire	General taxes
Police	General taxes
Emergency Medical	General taxes
Highways	Dedicated taxes and tolls
Schools	General taxes
Colleges	User fees (tuition) and general taxes
Transit	User fees (fares) and general or dedicated taxes

Source: Adapted from Douglass B. Lee, “Evaluation of Impact Fees Against Public Finance Criteria” In Arthur C. Nelson, editor, *Development Impact Fees: Policy Rationale, Practice, Theory and Issues*, Chicago (American Planning Association), 1988.

## Special Assessment Districts

While developer exactions may be gaining popularity, they do have their limitations. Exactions are only one-time assessments usually dedicated to capital improvements. As such, developer exactions have little relationship to maintenance and operating expenses, and they do not aid in the process of getting existing development to contribute its proportionate share of capital improvements. Special assessment techniques reviewed here help solve this problem. Many local governments will use both developer exactions and special assessment programs.

Special assessment districts are the broad title under which local improvement districts, municipal utility districts, and other sub-jurisdictional entities whose purpose is to finance and often maintain capital facilities to accommodate growth and development. They are commonly characterized as geographic areas within which fees or taxes are collected (in addition to jurisdictionwide general taxes) to fund capital investments or special services that clearly benefit properties within the district. The distinctive feature of special assessment districts is the very close and visible tie between the facility constructed or maintained and those who benefit from and pay for it. Unlike other financing options that target new development to pay for a share of communitywide improvements, special assessment districts assess all properties in a defined area for the range of facilities being provided. Assessments can finance debt service needed to provide the initial capital facilities and subsequently finance operations and maintenance costs. It is perhaps for this reason that they are the largest growing segment of American government. Table G-2 reports the change in government units by type for the period 1972 through 2002.

**Table G-2. Government Units: 1972 to 2002**

Type of Government	1972	1982	1992	2002	Change	
					From 1972	Percent Change
Federal	1	1	1	1	0	0.00%
State	50	50	50	50	0	0.00%
County	3,044	3,041	3,043	3,043	(1)	-0.03%
City	18,517	19,076	19,296	19,431	914	4.94%
Township	16,991	16,734	16,666	16,506	(485)	-2.85%
School District	15,781	14,851	14,556	13,522	(2,259)	-14.31%
<b>Special District</b>	<b>23,885</b>	<b>28,078</b>	<b>33,131</b>	<b>35,356</b>	<b>11,471</b>	<b>48.03%</b>

Source: Census Bureau, 2002 Census of Governments, CGO2-1(P), July 2002, accessed January 22, 2005 from [http://ftp2.census.gov/govs/cog/2002COGprelim\\_report.pdf](http://ftp2.census.gov/govs/cog/2002COGprelim_report.pdf)

Special assessment districts are attractive for a number of reasons. They shift the burden of infrastructure finance from the general public to properties receiving direct benefit, while avoiding the short-term time horizon of purely private infrastructure provision. Property owners are assured that their additional taxes or fees will be spent in a manner that will benefit them, with a more single-minded focus than is characteristic of general-purpose government activities. Most states permit the creation of local improvement districts with the approval of the majority of property owners within the district. In Florida, the developer can unilaterally impose a local improvement district on all development subject to approval by the governing body. In Texas, “municipal improvement districts” serve the same function and are often tied to eventual annexation to a nearby city if the development is outside the city limits. In most cases, once the district is created, participation is mandatory for all property owners. An exception is Colorado, which permits the creation of special districts with voluntary participation of property owners within the district.

Assessments within special assessment districts are based on attributes of property--such as property value, parcel size, street frontage or use – assumed to be directly proportional to benefits accruing to property owners. However, the basis and level of assessments may vary within the district. For water and wastewater, utility assessments can reflect use. For drainage, stormwater assessments can be based on impervious surface. For roads, assessments are often based on road frontage. For all other facilities, assessments can be based on value.

Special assessment districts have the ability to assess both existing development and vacant land in the immediate vicinity of the capital improvement. Particularly in local improvement districts with a considerable amount of existing development, revenue streams are more predictable than those of impact fees, development taxes, and developer exactions, which are dependent on development cycles. One concrete advantage resulting from the greater predictability of the revenue stream is that bonds can be issued by pledging to levy assessments necessary to repay the bonds.

Once established to provide infrastructure services, special assessment districts often operate outside the public spotlight that is focused in most communities on elected general governments. The proliferation of special assessment districts can weaken the authority of general governments to deal effectively with growth and to govern in the comprehensive way that they should. Widespread use of such districts can create a confusing hodgepodge of overlapping, independent taxing and assessment jurisdictions that lack the visibility and accountability, as well as the ability to coordinate different activities that characterize general-purpose governmental entities. Appendix 1 reviews details of the typical special assessment district process.

*Tax Increment Financing.* A variant of special assessment districts are tax increment financing (TIF) districts. They differ from other special financing districts in that no special fees are assessed in addition to jurisdictionwide taxes. District revenues consist of a diversion of that portion of revenues attributable to new development within the district. District revenues are used to retire bonds that finance the initial improvements

that stimulated the new development. It is this internal financing, or bootstrap redevelopment, approach that accounts for much of the popularity of the TIF technique.

TIF is particularly attractive to cities because other taxing authorities, such as counties and school districts, may be required to contribute to the redevelopment fund, and that fund is ordinarily under the control of the city or its redevelopment agency. In theory, the other jurisdictions do not lose revenue because there would be no growth in the TIF district's tax base without the stimulating public investment. Even if this were true, however, the development attracted to the TIF district might have otherwise occurred elsewhere in the region.

## **SUMMARY**

Given that impact fees are a theoretically inferior form of facility financing for most classes of facilities, local governments may seek to finance facilities using theoretically preferred approaches many of which are outlined in this appendix. Where they find legislative barriers to preferred alternatives, some may wish to petition legislatures to remove such barriers. Where there are local political constraints there may still be feasible options such as leases, revenue bonds, and special assessment districts. For many but not all facilities, impact fees may be viewed as a last resort but a necessary one if needed ultimate to meet the needs of new development without degrading current community facility quality.