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Development Impact Fees: A Review of Contemporary Techniques for Calculation, Data Collection and Documentation

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Development Impact Fees: A Review of Contemporary Techniques for Calculation, Data Collection, and Documentation

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Once again, a United States Supreme Court decision will require the reevaluation of many local land use regulations. In *Dolan v. City of Tigard*,[1] the Court established a "new and improved" standard for testing the validity of land use regulations, particularly those associated with development impact fees.[2] In explaining the new "rough proportionality" test, the Court stated, in part: "No precise mathematical calculation is required, but the city [local government] must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development."[3]

To practitioners designing and implementing a new generation of complex, comprehensive development impact fee programs, the Court's apparent relief from the burden of precise calculation seems somewhat pointless, and perhaps contradictory to the stated requirement for individualized determinations regarding the nature and extent of impact.[4]

Throughout the debate over development impact fees, the majority of the participants seem to have forgotten that the real purpose for such fees is to fairly distribute the capital improvement costs of growth and development among those who are generating the need for the improvements.[5] When the desire to accurately determine proportionate impact drives the calculation of fees, precision in calculation and measurable

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1. 114 S. Ct. 2309 (1994).
2. *Id.*
3. *Id.* at 2312.
4. *See generally* Brian W. Blaesser and Cristine M. Kentopp, *Impact Fees: The Second Generation*, 38 WASH. U. J. OF URB. & CONTEMP. L. 55 (Fall 1990).
5. *See* James C. Nicholas, *The Calculation of Proportionate-Share Impact Fees*, PLANNING ADVISORY SERVICE MEMO. (Am. Plan. Assoc., Chicago, IL), 1988; *see also* Theodore C. Traub, *Inverse Condemnation and Related Government Liability: Development Exactions and Impact Fees*, C872 ALI-ABA 269, 271, 288 (Sept. 30, 1993).

relationships regarding nature and extent are required, regardless of court dictates.[6]

Properly designed development impact fees are demand sensitive, cost sensitive, and revenue sensitive.[7] This is a simple truth often overlooked in the rush to implement a fee requirement to relieve capital cost burdens in rapidly growing communities.[8] In general, demand and cost factors are easily determined,[9] and while the revenue side of the equation can be more challenging,[10] its importance should be apparent.[11] Ask any local school district official to comment on the relative desirability of a residential development comprised of three-bedroom homes with an average fair market value of $500,000 and a residential development comprised of three-bedroom homes with an average fair market value of $100,000. The answer will be quick and decisive. Yet, we find many development impact fee requirements based on simplistic methodologies ignoring the relative value of development to the community, resulting in unfair fee assessments.[12] Seemingly, it is the complexity of a comprehensive impact fee equation that hinders its consideration,[13] and while this complexity is a reality, many similar complexities have been overcome in contemporary fiscal impact analysis work.[14]

There are obvious similarities between the methodologies employed in fiscal impact analysis and the proper calculation of development impact fees. Both should be based on a comprehensive analysis of an extensive array of relevant data.[15] However, development impact fee analysis should be carried to higher levels of detail, because the objective is to determine an individualized assessment of impact.[16] While fiscal impact analysis focuses

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6. *See generally* Richard Peiser, *Calculating Equity-Neutral Water and Sewer Impact Fees*, AM. PLAN. ASSOC. J. (1988).

7. *See* JAMES C. NICHOLAS ET AL., A PRACTITIONER'S GUIDE TO DEVELOPMENT IMPACT FEES (1991); *see also* Traub, *supra* note 5, at 283-84, 288.

8. *See* Arthur C. Nelson, *Development Impact Fees*, AM. PLAN. ASSOC. J. (1988).

9. *See generally* NICHOLAS ET AL., *supra* note 7.

10. *Id.*; *see also* Laurie Reynolds, *Living with Land Use Exactions*, 11 YALE J. ON REG. 507, 508 (1994).

11. *See* NICHOLAS ET AL., *supra* note 7.

12. *Id.*; *Cf.* Reynolds, *supra* note 10, at 509.

13. *See* Mark A. McNulty, *Impact Fees: Paying the Development Piper*, 6 DEL. LAW. 12, 12 (1988); *see also* Traub, *supra* note 5, at 289-90 (listing eight factors which are usually used to determine proportionate impact fees).

14. ROBERT W. BURCHELL & DAVID LISTOKIN, FISCAL IMPACT HANDBOOK: PROJECTING THE LOCAL COSTS AND REVENUES RELATED TO GROWTH (1978).

15. *See* NICHOLAS ET AL., *supra* note 7.

16. *See* Peiser, *supra* note 6; *see also* Dolan v. City of Tigard, 114 S. Ct. 2309, 2319-20 (1994).

on the effects of an entire development on an entire community,[17] development impact fee analysis should focus on the effects of the development of an individual parcel of land on specific capital components of applicable community facilities.[18]

Just as the advent of desktop computerization has broadened the application of fiscal impact analysis by local governments, the same data analysis power can be employed to generate accurate, proportionate share development impact fees. Figure 1 is a page from the residential development section of an extensive manual of development impact fee data tables generated by a computer program for the city of Elgin, Illinois.[19] The capital improvement development impact fee system illustrated in this example is derived from a fiscal impact analysis computer program called FILUM (Fiscal Impact Land Use Model).[20] The FILUM development impact fee system appears to go well beyond the rough proportionality test of the *Dolan* decision. The impact fees generated from the program are demand sensitive, cost sensitive, and revenue sensitive.[21] The most obvious example of this sensitivity is the progression of school district capital improvement impact fee amounts associated with housing values.

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17. *See* BURCHELL & LISTOKIN, *supra* note 14.

18. *See* Peiser, *supra* note 6; *see also* Traub, *supra* note 5, at 289-90.

19. ROGER K. DAHLSTROM, DEVELOPMENT IMPACT FEE PROGRAM FOR ELGIN, ILLINOIS, APPLIED PLANNING TECHNIQUES (1989).

20. ROGER K. DAHLSTROM, FISCAL IMPACT LAND USE MODEL FOR ELGIN, ILLINOIS, APPLIED PLANNING TECHNIQUES (1989).

21. *See* DAHLSTROM, *supra* note 19.

FIGURE 1

CITY OF ELGIN
DEVELOPMENT IMPACT FEE TABLE

School District Kane Co., Illinois):		301
Water Pressure Zone . . . . :		West
School Site Impact Fee	=	441.96
Park Site Impact Fee	=	980.35
Water System Impact Fee	=	522.87

Detached Single Family Dwelling - Three Bedroom			
Housing Values	School Capital Impact Fee	Library Capital Impact Fee	Total Fees
150,000	2,255.59	140.10	4,340.87
151,000	2,236.11	138.89	4,320.18
152,000	2,216.63	137.69	4,299.50
153,000	2,197.16	136.48	4,278.82
154,000	2,177.68	135.27	4,258.13
155,000	2,158.20	134.06	4,237.44
156,000	2,138.73	132.86	4,216.77
157,000	2,119.25	131.65	4,196.08
158,000	2,099.77	130.44	4,175.39
159,000	2,080.29	129.23	4,154.70
160,000	2,060.82	128.03	4,134.03
161,000	2,041.34	126.82	4,113.34
162,000	2,021.86	125.61	4,092.65
163,000	2,002.39	124.41	4,071.98
164,000	1,982.91	123.20	4,051.29
165,000	1,963.43	121.99	4,030.60
166,000	1,943.96	120.78	4,009.92
167,000	1,924.48	119.58	3,989.24
168,000	1,905.01	118.37	3,968.56
169,000	1,885.53	117.16	3,947.87
170,000	1,866.05	115.95	3,927.18
171,000	1,846.58	114.75	3,906.51
172,000	1,827.10	113.54	3,885.82
173,000	1,807.62	112.33	3,865.13
174,000	1,788.15	111.12	3,844.45
175,000	1,768.67	109.92	3,823.77
176,000	1,749.20	108.71	3,803.09
177,000	1,729.72	107.50	3,782.40
178,000	1,710.24	106.30	3,761.72
179,000	1,690.77	105.09	3,741.04
180,000	1,671.29	103.88	3,720.35
181,000	1,651.82	102.67	3,699.67
182,000	1,632.34	101.47	3,678.99
183,000	1,612.86	100.26	3,658.30
184,000	1,593.39	99.05	3,637.62
185,000	1,573.91	97.84	3,616.93
186,000	1,554.44	96.64	3,596.26
187,000	1,534.96	95.43	3,575.57
188,000	1,515.49	94.22	3,554.89
189,000	1,496.01	93.01	3,534.20

School district capital improvement development impact fees must be distinguished from the more commonly applied school site fees. Capital improvement impact fees are those associated with the acquisition or construction of a facility rather than the dedication of land.[22] In the school district example, the capital improvement impact fee schedule is the product of a matrix of calculations specific to the type of housing unit and its probable demographic characteristics, to the costs of particular school district capital facilities, and to the fair market value of the housing unit as a measure of its real estate tax potential. The sliding-scale fee amounts are the result of the varying fiscal impacts on the school district for housing in each value grouping. In this instance, housing value groupings are established at one-thousand-dollar intervals.

Under such a system, housing at higher value levels will pay lower development impact fees; this fact should surprise no one. Like the school district official referenced above, most of us understand that higher value housing exerts less negative fiscal impact on local school districts than lower value housing generating the same number of students; yet the majority of school district impact fee programs fail to adjust fees accordingly.[23] As a result, most school district development impact fee programs that include a capital improvement fee element are not providing an individualized determination of the nature and extent of the impact consistent with the *Dolan* decision.[24]

Upon closer examination, it is apparent that the FILUM program has not been designed simply to justify a fee. Indeed, for some capital facilities, this type of system will not substantiate a development impact fee for certain forms of development due to the relative balance between demand, cost, and revenue.[25] Figure 2 illustrates a portion of the Elgin development impact fee schedule for a three-bedroom attached single family dwelling unit (townhouse) at the point where the school district capital improvement impact fee reaches zero. Given the type of dwelling unit, the relevant school district, the potential generation of real estate tax revenue for school capital improvements, and local policy direction, a $156,000 three-bedroom townhouse pays its fair share toward school district capital costs, and therefore is not assessed a capital improvement impact fee. It is this level of specificity in measurement that advances beyond the rough proportionality test.

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22. McNulty, *supra* note 13, at 12; *see also* Theodore C. Traub, *Planning, Regulation, Litigation, Eminent Domain, and Compensation: Update on Exactions, Dedications, and Impact Fees*, C629 ALI-ABA 175, 178 (July 31, 1991).

23. *See* MICHELLE GREGORY, IMPACT FEES FOR SCHOOLS, PUBLIC INVESTMENT (Am. Plan. Assoc. 1993).

24. *See* DAHLSTROM, *supra* note 19.

25. *Id.*

FIGURE 2

CITY OF ELGIN
DEVELOPMENT IMPACT FEE TABLE

School District Kane Co., Illinois):	301
Water Pressure Zone . . . . :	West
School Site Impact Fee =	257.64
Park Site Impact Fee =	841.05
Water System Impact Fee =	448.57

Detached Single Family Dwelling - Three Bedroom			
Housing Values	School Capital Impact Fee	Library Capital Impact Fee	Total Fees
117,000	756.16	134.30	2,437.72
118,000	736.68	133.10	2,417.04
119,000	717.20	131.89	2,396.35
120,000	697.72	130.68	2,375.66
121,000	678.24	129.47	2,354.97
122,000	658.77	128.27	2,334.30
123,000	639.29	127.06	2,313.61
124,000	619.81	125.85	2,292.92
125,000	600.33	124.64	2,272.23
126,000	580.85	123.44	2,251.55
127,000	561.37	122.23	2,230.86
128,000	541.90	121.02	2,210.18
129,000	522.42	119.81	2,189.49
130,000	502.94	118.61	2,168.81
131,000	483.46	117.40	2,148.12
132,000	463.98	116.19	2,127.43
133,000	444.51	114.99	2,106.76
134,000	425.03	113.78	2,086.07
135,000	405.55	112.57	2,065.38
136,000	386.07	111.36	2,044.69
137,000	366.59	110.16	2,024.01
138,000	347.12	108.95	2,003.33
139,000	327.64	107.74	1,982.64
140,000	308.16	106.53	1,961.95
141,000	288.68	105.33	1,941.27
142,000	269.21	104.12	1,920.59
143,000	249.73	102.91	1,899.90
144,000	230.25	101.70	1,879.21
145,000	210.77	100.50	1,858.53
146,000	191.30	99.29	1,837.85
147,000	171.82	98.08	1,817.16
148,000	152.34	96.88	1,796.48
149,000	132.86	95.67	1,775.79
150,000	113.39	94.46	1,755.11
151,000	93.91	93.25	1,734.42
152,000	74.43	92.05	1,713.74
153,000	54.95	90.84	1,693.05
154,000	35.48	89.63	1,672.37
155,000	16.00	88.42	1,651.68
156,000	0.00	87.22	1,634.48

In viewing the excerpts from the Elgin development impact fee data tables, the reader will note a reference to a "water pressure zone" at the top of each page. Given the size of the water system and the city's topography, it has been necessary to divide the service area into three separate pressure zones, each with its own distribution mains and towers. In an attempt to assure specific measurement of impact, water system development impact fees are calculated based on the individual capital improvement program for each zone.[26] Although the system serves the entire community, the capital program in each zone is somewhat different based on the balance between funding for maintenance and projects to support growth.[27] Impact fees paid by those in a growing water zone are directed to appropriate capital improvement projects in that zone, and are not intermingled with funds appropriated for maintenance or projects in other pressure zones.[28]

The limitations of the FILUM program, and similar programs, are generally those associated with a lack of available local data.[29] All development impact fee programs should be based on a careful evaluation of relevant service standards and identification of appropriate demand units.[30] This process has been followed in the city of Elgin. However, many local governments and service districts do not collect data in a form that facilitates analysis of service standards and demand units.[31] For example, most communities can provide information regarding the daily pumping volumes of municipal water and can provide an estimate of the current population. As a result, these communities often believe that they have the necessary information (per capita water consumption) to implement a water system capital improvement development impact fee program. The problem is that non-residential development also consumes water, and most water system engineering studies do not identify water consumption factors for non-residential development to the level of detail required for accurate impact measurement.[32] In order to avoid the necessity of revising otherwise current studies, future consideration of a development impact fee program should be an integral part of the planning process rather than an afterthought.[33]

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26. *Id.*

27. *Id.*

28. *Id.*

29. *Cf.* Reynolds, *supra* note 10, at 510-11.

30. *See* Nicholas, *supra* note 5; *see also* Reynolds, *supra* note 10.

31. MAUREEN G. VALENTE & CLAYTON CARLISLE, DEVELOPER FINANCING: IMPACT FEES AND NEGOTIATED EXACTIONS, 20 MANAGEMENT INFORMATION SERVICE REPORT (April 1988); *cf.* Reynolds, *supra* note 10.

32. *See* VALENTE & CARLISLE, *supra* note 31.

33. *Id.*

In addition to the need for suitably detailed engineering studies for capital projects, comprehensive development impact fee programs require the support of an updated comprehensive plan and capital improvement program.[34] This is due to the fact that development impact fee programs, unlike simple recapture techniques, must project demand, cost, and revenue in order to be effective.[35] Accurate projections are essential to development impact fee program design and can be useful tools for explaining why such fees often are necessary components of a capital improvement program.[36] Figure 3 is a graph illustrating a projection of costs for the municipal water system for the city of Elgin over a five-year period. This graph contains two lines, one representing the operating budget and one representing the capital improvement program. Figure 3 illustrates one of the principal differences between an operating budget and a capital improvement program. A well-run operating system can achieve a balance between increased demand and increased service costs through careful planning for service base expansions and adjustments to the rate structure.[37] This is possible due to the generally incremental nature of increases in operating demands and the resulting revenues.[38]

Unlike operating budgets, capital facility expansions are accomplished in significant phases based on thresholds of service demand.[39] The Elgin water system is one of the largest in the state of Illinois and the capital improvement line on Figure 3 illustrates a major expansion of the principal treatment facility. Therefore, the capital improvement line rises to a greater extent than is common. Although the projected capital improvement program is uncommon in magnitude, the graph portrays accurately the nature of any capital improvement program: it advances in steps.[40] This occurs because capital improvement projects represent substantial, interval expenditures, and may be an "all or nothing" proposition.[41] For example, it is unlikely that a community will need to build a new water tower each year, but it would be irrational to build part of a water tower. Such a facility must be constructed as a complete unit in order to function. Even those capital facilities that can be constructed in modular form are built

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34. Thomas H. Roberts, *Funding Public Capital Facilities: How Community Planning Can Help, in* THE CHANGING STRUCTURE OF INFRASTRUCTURE FINANCING (James C. Nicholas et al. eds., 1985).

35. *See* VALENTE & CARLISLE, *supra* note 31.

36. *Id.; cf.* Reynolds, *supra* note 10, at 510-11.

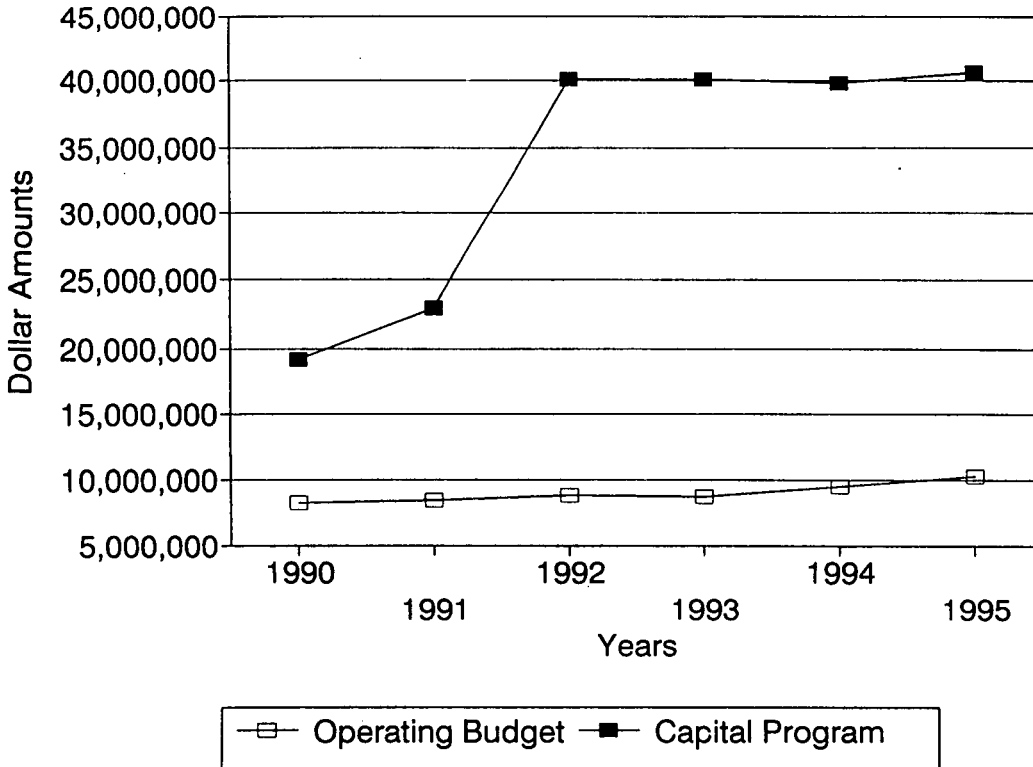37. LARRY W. CANTER ET AL., IMPACT OF GROWTH (1985).

38. *Id.*

39. *See* Peiser, *supra* note 6.

40. *Id.*

41. *Id.*

Municipal Water System
## Operating Budget & Capital Program

generally beyond the scope of current requirements due to economies of scale and the need to plan for a projected population.[42]

Figure 4 is a graph illustrating a cohort component population projection for the city of Elgin to the year 2020. There are two lines on the graph labeled "Migration" and "Natural Increase." The natural increase line illustrates the city's projected population based solely on the differential between births and deaths, while the migration line illustrates the city's projected population based on the differential between births and deaths and the derived migration factors.

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42. *Id.*

FIGURE 4

City of Elgin, Population
Migration & Natural Increase
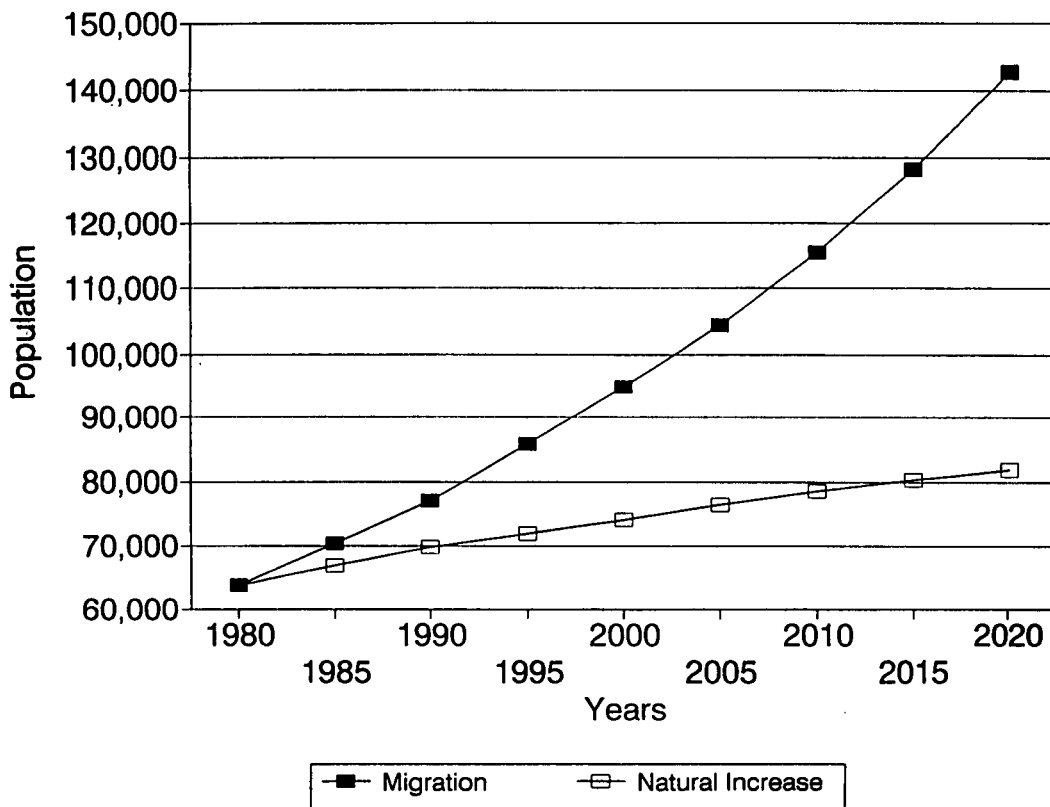
Clearly, if the city experienced growth based solely on natural increase, the capital facility needs of the community could be met with a modest capital improvement program. Growth would be slow and predictable, and planning for capital improvements to support growth could be done well in advance. Financial reserves for capital projects could be developed over an extended period of time with the addition of small premiums on the operational rate structure. Although this approach is contradictory to the philosophy behind development impacts fees (i.e., those who create the demand for a capital facility should pay for it),[43] it is likely that this

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43. *See* NICHOLAS ET AL., *supra* note 7; *see also* Traub, *supra* note 5, at 288.

approach would be politically and economically viable in a community with a natural increase growth rate.[44] Political acceptance would be based on the view that the community is providing specifically for its own future generations. Economic acceptance would follow because capital funding could be achieved without major tax and user fee increases.[45]

However, it is the migration line on Figure 4 that illustrates the actual population projection for the city. In a highly mobile society, an accurate population projection must include a migration component.[46] In this example, in-migration far exceeds out-migration, particularly in the family formation age groups; and the population projection line rises in an exponential fashion. Unlike the hypothetical natural increase environment, rapid population growth requires new and expanded capital facilities at frequent intervals.[47] Small premiums on the operational rate structure are insufficient to fund an aggressive capital improvement program.[48] It then becomes necessary to borrow to support the capital improvement program. This borrowing affects tax rates and user fees in the community.[49] At some point, these increases are not politically and economically acceptable, and most communities will embrace development impact fees or adopt a "slow growth" or "no growth" posture.[50] Opponents of fair development impact fees should consider carefully the consequences of their opposition with respect to future development opportunities.[51]

The simple reality is that the revenue generated from an expanding service base can be available at a time and in sufficient quantity to fund operating budget increases as the need for additional services develops, whereas funding for capital facilities is required in relatively large amounts prior to the realization of increased revenue from an expanding service

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44. *See* Forrest E. Huffman et al., *Who Bears the Burden of Development Impact Fees?*, AM. PLAN. ASSOC. J. (1988).

45. *See* Brenda Jones Quick, Dolan v. City of Tigard: *The Case that Nobody Won*, 1995 DET. C.L. REV. 79, 80-82.

46. *See* MICHAEL R. GREENBERG ET AL., LOCAL POPULATION AND EMPLOYMENT PROJECTION TECHNIQUES (1978).

47. *See* NICHOLAS ET AL., *supra* note 7.

48. *Id.*

49. *See Impact Fees and the Role of the State: Guidance for Drafting Legislation*, U.S. Dept. of Housing & Urban Dev. (1993) [hereinafter "*Guidance*"]; *see also* Jones Quick, *supra* note 45, at 81-82.

50. See Mark P. Barnebey et al., *Paying for Growth: Community Approaches to Development Impact Fees*, AM. PLAN. ASSOC. J. (1988); *see also* Deborah Rhoads, *Developer Exactions and Public Decision Making in the United States and England*, 11 ARIZ. J. INT'L & COMP. L. 469, 506 (1994).

51. *See* Rhoads, *supra* note 50.

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base.[52] In large part, it is this service demand/revenue gap that creates the rationale for development impact fees to assist in funding capital improvement programs.[53] It is important to note that the magnitude of this funding gap is a function of the rate of growth rather than the absolute volume.[54]

Figures 3 and 4 may be considered visual reminders of the relative balance between population growth and the capital facility expansions necessary to serve a growing demand base. If the service capabilities of capital facilities fail to expand in advance of demand, existing service standards deteriorate.[55] Unfortunately, most communities do not begin planning for the implementation of development impact fees until some degradation of existing service standards has occurred.[56] Because development impact fees must be based on existing service standards or planned service standards with a dedicated funding source, program implementation late in the growth cycle will be far less effective in addressing the community's capital facility needs.[57]

Further, it must be understood that development impact fees can be an effective component of a capital improvement program, but they remain a single component.[58] Because development impact fee revenue is linked directly to the introduction of additional demand units, the revenue is not capitalized in time to respond to capital improvement funding needs.[59] Consequently, major capital improvement projects will continue to rely on the issuance of bonds as the primary funding source regardless of impact fee implementation.[60]

With the *Dolan*[61] decision, it is clear that the Supreme Court has placed a far greater burden of proof on local land use regulators to document the relationship between a development impact fee and the alleged impact of the development.[62] However, the Court's action should be

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52. *See Guidance, supra* note 49.

53. *See* NICHOLAS ET AL., *supra* note 7; *cf.* Susan M. Denbo, *Development Exactions: A New Way to Fund State and Local Government Infrastructure Improvements and Affordable Housing?,* 23 REAL. EST. L.J. 7, 7 (1994).

54. *See* NICHOLAS ET AL., *supra* note 7.

55. *Id.*

56. *Id.*

57. *Id.*

58. *See* Barnebey et al., *supra* note 50; *cf.* Denbo, *supra* note 53, at 7.

59. *See* Barnebey et al., *supra* note 50.

60. *Id.*

61. Dolan v. City of Tigard, 114 S. Ct. 2309 (1994); *see generally* Mark S. Dennison, *Deciding Dolan: A New "Rough Proportionality" Test,* ZONING NEWS (1994).

62. *See* Jones Quick, *supra* note 45, at 79-80.

viewed as little more than a confirmation of the value of understanding the dynamics of community growth, and the value of performing in-depth analysis based on the best available data. Development impact fee programs that advance legitimate community planning objectives and place an emphasis on accurate projection and measurement should be unaffected in form or content by the *Dolan* decision.