

*NATIONAL ASSOCIATION OF  
INDUSTRIAL & OFFICE  
PROPERTIES*

**RESEARCH  
FOUNDATION**



# **FINANCING REGIONAL INFRASTRUCTURE**

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Regionalism is the hot-topic of debate for those interest groups, state and local governments, and citizen groups that are engaged in the growth management debate. New residential, commercial, and industrial developments have spread far beyond the established boundaries of central cities and close proximity suburbs. That extended growth has generated additional traffic flows, air pollution, and demands for new infrastructure services and financing.

The need for infrastructure planning and financing is frequently linked to the question of regionalism because these components cut across local government boundaries. This leads, in turn, to local and regional discussions about whether planning, financing and implementation of such infrastructure systems can and should be handled locally.

In 2000, NAIOP approached Dr. Robert Schmidt of the University of Nevada, Las Vegas to conduct a study that would contribute to the national dialog on regionalism. The purpose of the project was to examine the planning for and the financing of infrastructure systems on a regional basis, using a specific local example as a template.

The research conducted for this study included a review of the current literature and data sources, interviews with key members of the development community throughout the United States, informal surveys of numerous regional and local government agencies across the nation, and research into how the public itself views the topic. The findings are included in the document before you, which cover the following areas of focus: Analysis of Infrastructure Funding Mechanisms; Financing Case Studies; Funding Regional Infrastructure; Provision of Infrastructure and Regional Governance; and Conclusions and Recommendations.

NAIOP hopes you will find the following information on infrastructure and regionalism to be enlightening. The purpose of a guidance document is to provide our members with facts and principles that can assist them in understanding the issue of financing regional infrastructure, as well as help them to distinguish the myths from the realities, assess different approaches and techniques to the issue in a local context, and be inspired to engage with members of their own communities on the topic. The end result: Productive dialogue designed to achieve positive outcomes for not just the real estate community, but for local communities as well.

***NAIOP Growth Issues Subcommittee***

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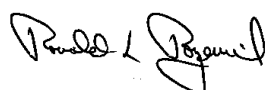
# A C K N O W L E D G E M E N T S

A project this ambitious could not have been accomplished without the help of NAIOP members who volunteered to serve on its evolution. Special thanks to the NAIOP Growth Issues Subcommittee for their offer to serve as a “sounding board” for this document. Those members include Co-Chairs Brian Blaesser and Pete Bolton, of Boston, Massachusetts and Phoenix, Arizona, respectively; Fred Beebee of Atlanta, Georgia; David Begelfer of Boston, Massachusetts; James Brubaker of Denver, Colorado; Ronnie Duncan of Tampa, Florida; David T. Finger of Raleigh, North Carolina; Eric S. Kassoff of Washington, DC; Joseph A. Langley of Denver, Colorado; Karen Marcotte of Albuquerque, New Mexico; Robert F. Moody of Denver, Colorado; Charles C. Pfeffer of Maple Grove, Minnesota; Todd Sheaffer of Beaverton, Oregon; and Robert A. “Tim” Snow of Las Vegas, Nevada. Thanks to all of you for your tireless efforts.

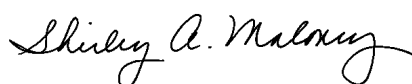
Special recognition clearly goes to Brian Blaesser and Tim Snow for their leadership on this issue. Brian and Tim shepherded this project from conception to publication. They not only worked with Dr. Schmidt to ensure that the major regionalism issues were analyzed and presented in a clear manner, they also contributed to the review of the several drafts of the document that became the final product you see before you. NAIOP is indeed fortunate and grateful to have such able and knowledgeable people lead the charge in this effort.

We would also like to acknowledge the outstanding work and efforts of the staff of NAIOP, who have worked long and hard to produce a document that would truly benefit our members, particularly Assistant Vice President for State and Local Affairs Steve Gallagher, who has been with this project from the beginning.

There is no “quick fix” for the complex issue of regionalism. This study is not meant to provide answers, but to be used as a sounding board from which to launch further discussion. We hope this study serves as a resource for not only NAIOP members, but for interested citizens, businesses, and governmental bodies who want to forge solutions built on objective information and sound development principles.



**Ronald L. Rayevich**  
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## EXECUTIVE SUMMARY

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The purpose of this study is to provide office and commercial property developers with the essentials needed to understand former, current, and potential future funding mechanisms that can be used to fund regional infrastructure development. In order to do so, this study examines the three major regional constructs: (1) regional planning only for such infrastructure systems, (2) regional planning for and financing of such infrastructure systems, and (3) regional planning, financing and governance of infrastructure systems. More specifically, the objective of this study is to identify local infrastructure financing mechanisms that have been used, are currently being used, or could be used to finance regional infrastructure systems.

The varied methods of infrastructure financing increase the potential for inequitable treatment of developers, and complicate consideration of local, regional and legal issues. This report surveys methods and examines issues related to infrastructure financing. It describes regional, local, legal and fairness considerations, and best-practice approaches. This report includes a review of the research and provides additional insight and recommendations for future infrastructure provision.

The arguments surrounding the merits of regional governance are well rehearsed in the literature, though there is minimal empirical research to support their position. Arguments for regional forms generally center on either environmental or technocratic arguments of improved government in terms of effectiveness and efficiency.<sup>i</sup> Counter-arguments stress the lack of value-added from a regional tier and the need for competition in service provision.<sup>ii</sup> There remains no consensus even within the literature, partly as the result of insufficient empirical evidence and also due to the ambiguity of the term regional governance.

The diversity of methods employed in regional infrastructure financing and provision in North America is immense. The variations are as much a result of political and economic forces as geophysical and climatic ones. These variations make it virtually impossible to conduct a reliable cross-regional comparison. The lack of consistent methods results in disparate data, which impedes progress towards optimization. Nevertheless, two divergent models are emerging: single-purpose regional structures and integrated or multi-purpose structures.

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<sup>i</sup> There are many advocates of regionalism and smart growth to include attorneys, operations researchers, environmentalists, urban designers and urban planners. Peter Calthorpe, a well-established architect and New Urbanist is representative of this movement. See Dantzig, George B., and Thomas L. Saaty, *Compact City: A Plan for a Liveable Urban Environment*. San Francisco: W.H. Freeman and Co. 1973; Freilich, Robert H. and Bruce G. Peschoff, "The Social Costs of Sprawl", *The Urban Lawyer* 29.2, 183-198; and Schmidt, Charles, "The Specter of Sprawl," *Environmental Health Perspective* 106, no. 6: A274-79 (June 1998).

<sup>ii</sup> The critics of regionalism and smart growth include a wide variety of professionals, predominantly economists, developers, public administration scholars, and organizational researchers. Peter Gordon, a prominent economist is representative of this group. Many critics utilize public choice theories to support their positions. See Gordon, Peter and Harry Richardson and Gang Yu, "Metropolitan and Non-Metropolitan Employment Trends in the U.S.: Recent Evidence and Implications" *Urban Studies*, 30: 883-898; Siegel, Fred, "Is Regional Government the Answer?" *The Public Interest*; No. 137, 85-98 (1999).

## **Regional Governance Structures**

Single-purpose regional infrastructure providers are the predominant method of regional planning, financing and provision. They provide a wide array of public services including transportation, water, sanitation, and fire protection. Because there are a number of public services that fall under the heading of single-purpose districts, many critics have periodically called for the integration of these entities in an effort to reduce the amount of government. It would appear that these critics have confused the concept of many governments with that of too much government. Proponents of regional governance structures often mention an array of presumed benefits that would accompany regional structures, including better government and cost-efficiencies achieved through economies of scale. The results of the research for this report question several of these assumptions.

There are three regions in the United States that are most often cited for their integrated or multi-purpose regional governance structures: Portland, Seattle, and Minneapolis-St. Paul. Two of these regions, Portland and Minneapolis-St. Paul are examined in greater detail in the case studies segment of this report. Although portrayed by the supporters of integrated regions as positive examples of the benefits of regional governance, there is little empirical evidence supporting their assertions. Most importantly, there is no convincing data to suggest that integrated regional forms of governance will reduce citizen costs or encourage public sector efficiency in technical infrastructure provision. The evidence strongly suggests that competition among providers remains a much more effective tool for accomplishing these goals.

There is no doubt that the pooling of resources often does create a new, larger organization with greater capacity and more options for service provision. However, these advantages must be weighted against the reduction in citizen access to government and the dilutions of citizen representation that typically accompany mergers of single purpose service providers.

## **Regional Finance**

Most large regions already use some form of regional financing mechanism for regional infrastructure. Most often masked in the form of a regionalized sales tax or user fee(s), the vast majority of growth regions now have some form of regional financing mechanism in place.

Regional advocates argue that regional structures have greater access to capital markets and thereby reduce their costs of borrowing for capital investment. For example, tax-exempt bonds tend to work best in larger jurisdictions that have access to capital markets. However, many jurisdictions are now pooling their requirements thereby reducing their costs of borrowing. It should be noted that this form of financing is arguably not equitable because individuals with higher incomes benefit from tax incentives more than people with lower incomes.

The research has segmented the various forms of public service infrastructure into four types: user fees, benefit capture methods, subsidies and development impact fees. Each method

has distinct advantages and disadvantages in application. Most importantly, this research suggests that (1) most regions are under-utilizing user fees and over-utilizing development impact fees, and (2) most regions are over-charging agricultural, office and industrial properties and under-charging residential development.

The main economic reason for user fees is to promote efficiency. User fees should be a major source of funding infrastructure provision. User fees are generally the most equitable form of infrastructure finance in wet utilities. User fees that are correctly set not only promote conservation, they promote economic efficiency by providing information to public sector suppliers about how much clients are willing to pay and by ensuring that residents value what the public sector supplies.

Benefit capture methods such as well-defined property tax systems can be an integral part of an infrastructure financing system. Most organizations that oppose property taxes too often offer alternatives such as development impact fees that result in greater forms of inequity. Benefit-capture methods such as Tax Increment Financing and special assessment districts have grown exponentially in the last decade in many high-growth regions.

Infrastructure subsidies arise in such divergent forms as sales taxes and federal grants. Any infrastructure program that relies on subsidies should be regarded with a great deal of skepticism. Federal grants should only be supported in the short-term to level the playing field and to support federal mandates. From an economic point of view, large-scale infrastructure subsidies are typically inequitable.

Development impact fees, at their best, can promote efficient land use decisions by eliminating cross-subsidization that arises because of public funding of municipal infrastructure. However, there is little evidence that development impact fees are, in fact, implemented in such a manner. In fact, almost every impact fee system evaluated had at least one major flaw in its design. The majority of the development impact systems evaluated as part of this research over-charged commercial development and failed to address marginal costing requirements.

The use of private sector capital particularly in wet utilities capital infrastructure provision has been seen as a way of freeing up municipal resources and debt capacity for other activities. The keys to attracting private sector debt capital are the underlying contracts and agreements that ensure a secure revenue stream. However, private sector capital is not a universal remedy for funding infrastructure. Federal grants for wet utility infrastructure have declined in the last decade. This decline has resulted in increased pressure on municipalities to use development impact fees for infrastructure.

## **Regional Planning**

Developers as well as government employees conduct regional planning. Throughout the nation developers have proven that they can create large-scale “master-planned communities”. Robert Nelson and others have proposed that land markets (developed and undeveloped land) be free while government planners focusing on only infrastructure

planning.<sup>iii</sup> In so doing, government planners would establish the preconditions for land markets, thereby providing increased certainty. Under this scenario government planners would focus only on trunk-line infrastructure plans and establish technical service standards. Developers would do the remaining planning, effectively liberalizing land markets through an optimization of labor.

## Findings

The study investigated the actual experiences of different regions; with an emphasis on two that have integrated regional operational structures (Portland and Minneapolis-St. Paul) and two that do not (Atlanta and Las Vegas). In the integration cases, total revenues coming into the governments involved have increased since the time of consolidation. Many of their experiences mirrored those described in the literature.

Fred Siegel's research informs us that there are no success stories among the recently formed metro governments.<sup>iv</sup> For example, Siegel notes: "What's striking about Metro-Dade [Dade County, Florida] is that it has delivered neither efficiency nor equity nor effective planning while squelching local self-determination."<sup>v</sup> In summary, this research, like Siegel's could find no empirical evidence that regional integration is a technique for making governments get by with less.

## Better Government

Proponents of integrated forms of regional governance argue that they provide for better government. However, in terms of efficiency or effectiveness, the literature does not support this argument whether measured by efficiency or effectiveness. In fact, it appears that the main advantage of single-purpose regional form of government is to aid local citizens in expressing their preferences. Thomas DiLorenzo found that "The ability of citizen-taxpayers to create special districts provides a means of accommodating diverse preferences" ...the application of economic theory leads one to conclude that single-purpose districts are conducive to both production and consumption efficiency in the provision of local public services.<sup>vi</sup>

Many proponents of integrated regional governance dwell on the inevitable shortcomings of capitalist society, alleging "market failure" explanations for what they have identified as unattractive and constructing arguments for regional solutions to remedy imperfections. The

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<sup>iii</sup> Nelson, Robert H., *Zoning and Property Rights: An Analysis of the American System of Land-Use Regulation*, Cambridge: MIT Press (1980); Holcombe, Randall and Sam Staley, eds., *Market Strategies for Land Use Planning for the 21<sup>st</sup> Century*, Westport, Conn.: Greenwood Press (2001)

<sup>iv</sup> Siegel, Fred "Is Regional Government the Answer?" *The Public Interest*, No. 137: 85-98 (1999).

<sup>v</sup> Ibid at pages 88-89.

<sup>vi</sup> DiLorenzo, Thomas J. "The Expenditure Effects of Restricting Competition in Local Public Service Industries: The Case of Special Districts." *Public Choice* 38: 569-78.

history of previous centralized failed attempts at government intervention is seldom considered.

The famous model of local economies developed by Charles Tiebout<sup>vii</sup> speaks of the importance of providing a variety of options to citizens. Households, Tiebout argued, are then able to choose the jurisdiction that best meets their criteria for the correct bundle of public goods and express their preferences by “voting with their feet.”<sup>viii</sup> By extension, reducing the number of governments reduces citizen choices and compromises citizen preferences.

## **Economies of Scale**

The most popular argument advanced by regional governance advocates is that of “economies of scale”. Theoretical and empirical research confirms that however that, economies of scale vary according to the service provided. Moreover, the creation of diseconomies of scale frequently offset initial savings in municipal consolidation of public services.

Determining the “appropriate economy of scale” for each infrastructure form is problematic. For example, international research at the CSIRO Urban Water Program suggests that economies of scale exist in sewage treatment plants with gray-water recycling found that treatment plants do exhibit economies of scale, but that diseconomies occur in the sewage transport system after connection of approximately 10,000 people;<sup>ix</sup> while Walkerton found economies of scale for chlorination plants at 125,000 residents.<sup>x</sup> However, many developing communities have already exceeded the demographics that would result in an economy of scale gain through the consolidation of governments or have entered into joint powers agreements or other inter-local agreements to achieve the efficiencies offered by economies of scale.

Capital-intensive infrastructure such as water provisioning, solid waste disposal, and transit operations are the functions that are most often consolidated (or privatized) for efficiency reasons. Regionalism proponents argue that integrating the planning and management of these functions may gain even greater efficiencies. However, there is little theoretical or empirical evidence to support these claims.

One major reason for this lack of evidence is the substantive effect of climate and topography on transportation and wet utilities. There are very few regions that possess integrated region sheds for population, water, drainage, air quality, and transportation (Las Vegas, Nevada is

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<sup>vii</sup> Tiebout, C. “A Pure Theory of Local Public Expenditures”, *Journal of Political Economy* 64: 416-424 (1956).

<sup>viii</sup> Ibid.

<sup>ix</sup> CSIRO, “Economies of Scale in Water Systems”; Sydney, Australia: CSIRO (2000)

<sup>x</sup> The Walkerton Inquiry Draft Report Ontario, Canada (2000)

one). Proponents of regional governance, however rarely address this geophysical, climate and demographic set of realities.

### **Organizational Costs**

The cost of blending organizations is most often overlooked or understated by proponents of regional governance. Salary levels for comparable work are almost always increased to match those of employees in the higher paid organization. Equipment and facility standards are almost always set at the highest level among the previous organizations. There are additional factors that have been largely ignored in the consolidation debate.

Perhaps the most questionable assumption of advocates of regional forms of governance is that larger, regional organizations will continue to behave just as their smaller, predecessor organizations did. Existing research do not support such assumptions. On the contrary, larger organizations, with combined revenues and responsibilities, will tend to identify options that were not available to their predecessor organizations and ultimately need greater resources to sustain them.

An additional problem is as the monopolistic power of a government increases it becomes more likely that the government will spend money at levels higher than citizens would demand. That is because it is more difficult for citizens to monitor the efficiency of larger governments.

### **Shift To Development Impact Fees**

Our interviews with public officials in the case study areas suggest that the Supreme Court cases of *Nollan*<sup>xi</sup> and *Dolan*<sup>xii</sup> have encouraged many jurisdictions to shift away from solely demanding land exactions through development agreements and toward imposing impact fees as well as conditioning development on infrastructure provision. Our analysis confirms the finding that impact fees generate fewer constitutional concerns for jurisdictions since they can easily tailor them to the impacts created by a specific development. The data suggests that when jurisdictions pay greater attention to nexus and rough proportionality requirements and engage in more systematic and integrated long-range planning they often justify higher impact fees than they previously charged.

### **Conclusions**

Regional governance of infrastructure should be undertaken cautiously, on a case-by-case basis. The existing trend toward voluntary cooperation between independent agencies indicates that local governments are already capable of recognizing areas where structural changes are needed and are responding accordingly without the creation of monolithic government structures.

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<sup>xi</sup> *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987)

<sup>xii</sup> *Dolan v. City of Tigard*, 114 U. S. 2309 (1994)

There is little evidence that regional forms of governance will reduce citizen costs or encourage public sector efficiency. Competition among public service providers is a much more effective tool for accomplishing those goals.

The pooling of resources often does create a new, larger organization with greater capacity and more options for service provision. However, these advantages must be weighed against the reduction in citizen access to government and the dilutions of citizen representation that typically accompany government mergers.

Efficient markets allow consumers to make informed trade-offs between price, quantity and quality, so they can choose the bundle of goods that meet their specific needs. Only if individuals have access to a range of viable choices can society be sure that consumers' decisions represent true preferences. Regionalism seeks to remove that range of choices.

Correcting market distortions rather than implementing a battery of doomed centralized planning mechanisms would better solve many of today's regional issues. For example, economists, transportation professionals, and environmentalists understand the importance of reforming transport pricing and markets, yet proponents of regionalism rarely discuss these items. Moreover, most smart growth prescriptions weaken property rights, constraining the markets ability to work effectively.

NAIOP members should support solutions to "regional" problems that: (1) correct market distortions created by government intervention and (2) strengthen not weaken property rights. In the final analysis, "regionalism" and regional land use controls cannot be justified on either equity or efficiency grounds. The "cure" for many regional problems lies in reducing government created market distortions from the under-pricing, not regional homogeneity and bureaucracy.