Interjurisdictional Tax and Policy Competition: Good or Bad for the Federal System?

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Abstract

Interjurisdictional competition has captured public attention in recent years, mostly because of highly publicized "bidding wars" for job-producing facilities, such as automobile plants. Consequently, competition is as controversial as ever.

Interjurisdictional competition, that is, interstate and interlocal competition, has again become a public policy issue because cooperative federalism has been jolted **by** the fiscal crisis of the federal government, declining federal aid to state and local governments (i.e., from 26.5 percent of state-local outlays in **1978** to **17.5** percent in 1990), the effects of federal tax reform on state and local governments, regional booms and busts in economic activity, interjurisdictional mobility of citizens and business firms, interstate business activity, and heightened competition from abroad. All of these factors have accentuated the competitive dynamics that are inherent in our democratic federal system.

Twenty years ago, the consensus view of the effects of interjurisdictional competition, especially tax competition, was generally negative. Today, however, many analysts hold a more benign as well as a broader view of interstate and interlocal competition. In this report, therefore, the Advisory Commission on Intergovernmental Relations (ACIR) reviews the research on interjurisdictional tax and policy competition that has become available since **1981,** when the Commission last looked at the subject, and examines the extent to which competition appears to have harmful or beneficial effects on efficiency and equity in the federal system. Some key findings of the report are as follows:

Although the existence of interstate and interlocal competition is often noted by observers of American federalism, there is no explicit or comprehensive definition of competition among governments. One definition is that competition involves rivalry among governments in which each is trying to win some scarce beneficial resource (e.g., a high-tech firm) or is seeking to avoid a particular cost (e.g., a hazardous waste dump). Another definition of interjurisdictional competition is the manner in which the free movement of **goods,** services, people, and capital constrains the actions of state and local governments (e.g., the ability of a jurisdiction to levy a tax or charge without driving out citizens or businesses).

There is no definitive evidence that interjurisdictional competition has been increasing in recent years. **This** lack of evidence is due in part to definitional and measurement problems, which make it difficult to determine levels and types of Competition.

Efforts to use targeted tax incentives to attract mobile industry are still viewed negatively by most public finance experts. Criticism of this form of tax competition ranges from the argument that it amounts to a zero-sum game, if not a negative-sum game, for the whole nation to the conclusion that state and local spending on negotiated tax packages often exceeds the benefits derived from new jobs, sales, and services.

Tax competition involves more than targeted tax incentives. It also involves competition with respect to overall

tax levels, the levels of specific taxes, and the incentives and disincentives built into the general tax structure of a state or local jurisdiction.

Interjurisdictional competition, moreover, includes more than tax competition. It also involves competition in service provision, regulation, and other public policy matters.

Contrary to the traditional view, interjurisdictional competition does not always create pressure to hold down government spending; it also can create pressure on state and local governments to increase spending, and therefore to raise taxes or charges. To be economically competitive, for example, states and localities find it necessary to have systems of education and infrastructure that are equal to or better than those of their near and distant competitors.

Interjurisdictional competition, therefore, may be an important regulator of the federal system. Just as market competition produces an economic system responsive to consumer demands, interjurisdictional competition can produce a government system in which taxes and policies are brought into line with citizen preferences.

At the same time, interjurisdictional competition is not always beneficial or always harmful. Costs and benefits vary with different types and fields of competition. Certain types of competition (e.g., improvements in education performance) have beneficial spillovers for neighboring jurisdictions, while other types of competition (e.g., lax pollution control) have harmful spillovers.

Interjurisdictional competition does have a tendency to reduce state and local reliance on ability-to-pay taxes (e.g., a progressive income tax). There is pressure to rely on benefit taxes, that is, taxes paid by individuals and businesses to support those services from which they perceive positive benefits. This tendency raises equity issues with respect to the ability of state and local jurisdictions to redistribute income and provide services to residents having lesser ability to pay for services.

Interjurisdictional competition, therefore, involves complex interactions and trade-ofis between efficiency, equity, responsiveness, and accountability in the federal system. Competitive actions that increase efficiency may decrease equity and vice versa. Hence, evaluations of the beneficial and harmful effects of competition depend to a great extent on how one weights the values of efficiency, equity, responsiveness and accountability, and on how one thinks those values can be realized best in the public sector.

Interjurisdictional competition, however, does not occur in a vacuum. The federal government stimulates, impedes, and regulates interstate and interlocal competition in numerous ways. Many federal policies—domestic, foreign, and military—have advantages and disadvantages for different states and localities. Some observers also argue, for example, that federal redistributive policies can encourage more beneficial interjurisdictional competition by allowing its efficiency outcomes to come into play while compensating for the ill effects of competition on equity.

Any evaluation of competition among states and local governments must consider the costs and benefits of the alternatives to competition. These alternatives include cooperation, coordination, cooptation, collusion, and coercion. Cooperation and coordination are the preferred alternatives in American federalism, although competition, such as that in the marketplace, also can produce cooperation and coordination.

Competition and cooperation, therefore, are not mutually exclusive facets of the federal system. Both have a role in a healthy and prosperous federal system, and a certain tension between them is useful for keeping our eyes fixed on how they contribute to the realization of the values of federalism. Furthermore, competition and cooperation can work together for certain ends. For example, while states and localities compete individually in the international economy, they also cooperate to make the nation as a whole more competitive in the face of global interjurisdictional competition.

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The principal investigator for this project and author of the report is Daphne A. Kenyon, Assistant Professor of Economics at Simmons College. The assistance and advice of many people also were invaluable in the preparation of this report.

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The joint conference held by ACIR and The Urban Institute on March 23 and 24, 1988, entitled "Interjurisdictional Tax and Policy Competition: Good or Bad for the Federal System?" stimulated a productive exchange of ideas, many of which are reflected in this report. Participants included Roy W. Bahl, Georgia State University; Albert Breton, University of Toronto; Warren T. Brookes, ***Detroit News;*** John E. Chubb, The Brookings Institution; Robert D. Ebel, U.S. ACIR; Daniel J. Elazar, Temple University; Ronald C. Fisher, Michigan State University; R. Scott Fosler, Committee for Economic Development; Steven D. Gold, National Conference of State Legislatures; John Kincaid, **U.S.** ACIR; Helen F. Ladd, Duke University; **E.** Blaine Liner, State Policy Center, The Urban Institute; Therese J. McGuire, Northwestern University; William A. Niskanen, Cato Institute; Dick Netzer, New York University; Nonna A. Noto, Congressional Research Service, Library of Congress; Wallace **E.** Oates, University of Maryland; Robert W. Rafuse, Jr., U.S. Department of the Treasury: Andrew Reschovsky, Tufts University; Robert W. Schwab, University of Maryland; John Shannon, The Urban Institute; Frederick D. Stocker, National Tax Association-Tax Institute of America; Robert Tannenwald, Federal Reserve Bank of Boston; and Deil **S.** Wright, University of North Carolina, Chapel Hill. Papers from this conference will be published by The Urban Institute Press in mid-1991

as ***Competition among States and Local Governments: Efficiency and Equity in American Federalism.***

This report also benefited from the views expressed at the roundtable discussion "Competition: Good or Bad for the Federal System?" held by the ACIR on March 25, 1988. Participants included Albert Breton, University of Toronto; Dan R. Bucks, Multistate Tax Commission; Parris N. Glendening, County Executive, Prince George's County, Maryland; William A. Niskanen, Cato Institute; and Richard D. Pomp, University of Connecticut.

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John Kincaid
Executive Director

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Figures and Tables

Chapter 1

Introduction and Summary of Major Findings

Almost a decade ago, the **U.S.** Advisory Commission on Intergovernmental Relations investigated the phenomenon of competition among state and local governments.[1] Specifically, interstate tax competition was the subject of one of a series of reports on disparities in regional growth. The major question raised by the Commission was "whether federal intervention is needed because interstate competition for industry has reached a point that is demonstrably adverse to the economic health of the states and the nation."[2] The 1981 report's general evaluation of tax competition was negative. ACIR argued that tax competition could lead to:

- Inadequate state and local spending;
- A shift away from taxes based on ability-to-pay; and
- Wasted resources as state efforts to attract mobile industry from other states result in a "zero-sum game."[3]

In 1987, ACIR commissioned this report in order to take another **look** at competition among state and local governments. The prospectus for the project noted that certain public finance analysts are now taking a more favorable view of the effects of interjurisdictional competition. For example, Charles McLure has argued that "the likely benefits of reducing tax competition are relatively slight. . . .On the other hand, the benefits of tax competition are potentially quite important."[4] Other public finance experts have argued that:

> Just as with competition among private business firms, we would normally expect competition among government units to have a beneficial influence **by** inducing communities to provide a mix **of** services in line with the preferences of its citizens . . . . [Tax competition] is a spur to efficiency because it forces government officials to keep benefits in line with taxes paid. It does inhibit localities, however, if they wish to tax some groups to finance benefits of other groups, a desirable limitation insofar as redistribution is intrinsically a function of the national government. It is understandable that **local** government officials do not like tax competition, but the public is probably better off because of the discipline it enforces?

At the same time, some researchers and practitioners continue to be critical of the effects of competition among state and local governments. For example, Dan Bucks, executive director of the Multistate Tax Commission, has stated that:

> . . .[I]nterjurisdictional tax competition undermines state tax systems that are fair, reasonable and effective., ..Interstate tax cooperation can generate economic benefits, while interstate tax competition can produce harmful economic results.[6]

Why Study Interjurisdictional Competition?

Other than indications that some public finance experts have changed their views over the last decade, why **is** a new study of interjurisdictional competition among state and local governments useful? Why is interjurisdictional competition of current interest to policymakers, practitioners, and analysts?

Efforts by states and localities to lure business firms into their jurisdictions through the use of economic development incentives are as controversial today as they were a decade ago. One journalist has labeled this competitive phenomenon the "tax-incentive wars."[7] Concerns about this form of interjurisdictional competition include the question of whether such efforts merely "rob Peter to benefit Paul," whether state and local governments are forgoing too much in tax revenue per job created, and whether the provision of special financial incentives for footloose firms constitutes fair tax policy for the rest of the business community and for individual taxpayers. Policymakers are asking, as ACIR did in its last report, whether federal intervention might be called for to limit this form of competition among state and local governments.

At the same time, new forms of competition have come into public view. Competitive efforts to avoid costs, for example, to avoid hosting hazardous and nuclear waste sites and power plants or to discourage inmigration of homeless persons and welfare recipients are often in the news. These competitive efforts, known by the name NIMBY (not-in-my-backyard) can frustrate social and environmental policies of states and their local governments and the federal government.

The issue of competition is often raised today in an international context. Everyone seems to be concerned about the competitive ranking of the **U.S.** economy? The issues of interjurisdictional competition and international competitiveness are intertwined: state and local governments have become increasingly active in attracting foreign investment and promoting exports of products from their states? One question raised is the extent to which state and local efforts help or hinder national efforts to improve the international competitiveness of the **U.S.** economy. Another issue is whether the heterogeneity of fiscal and regulatory institutions among state and local governments in the United States does or will constitute a competitive liability in the international arena. If so, will greater efforts at state and local harmonization or cooperation, instead of competition, be called for?[10]

As the relationship between the federal government and state and local governments has changed over the last decade, interest in the effects of the changing federal role in interjurisdictional competition has grown. For example, some state and local government experts predicted that enactment of the *Tar Reform Act of 1986* would lead to a more competitive interjurisdictional environment because reduced federal marginal tax rates would result in higher effective state and local tax differentials. The notion was that as state and local taxes "mattered more," interjurisdictional tax competition would become more heated.

There also has been a sea change in federal aid to state and local governments. Federal grants-in-aid as a percentage of total state-local outlays fell from *26.5* percent in 1978 to 17.5 percent in 1990.[11] To the extent that grants-in-aid buttress the relative competitive ability of poorer state and local governments, reduced federal aid may make it more difficult for the less well-off jurisdictions to compete.

Finally, there is a wide range of federal, state, or local government reform proposals that can be properly evaluated only in the light of an understanding of the benefits and costs of interjurisdictional competition. The Congress, for example, has placed a high-income cap on state and local tax deductions allowable under the federal individual income tax. Given that federal deductibility of state and local taxes tends to mute interjurisdictional tax competition, an evaluation of this cap depends on, among other considerations, whether one decides tax competition is good or bad for the federal system. State governments at various times have considered proposals for consolidating local jurisdictions, encouraging joint service agreements among neighboring local governments, and loosening property tax and other tax or debt limits. Consolidating local jurisdictions and encouraging joint service agreements would tend to decrease interlocal fiscal competition; loosening tax and debt limits would give local governments greater latitude in fiscal competition. Each of these proposals should be evaluated in light of the benefits and costs of competition among local governments.

Research Objectives

This report is intended to be both a review of the theoretical and empirical literature on interjurisdictional competition and a conceptual exploration of the topic. A key objective is to synthesize the research on interjurisdictional competition that has become available since ACIR last investigated the issue.[12]

One of the most important issues related to interjurisdictional competition is an evaluation of its benefits and costs within the American federal system. That is, does competition improve efficiency in the public realm by minimizing costs for taxpayers while improving the mix and quality of public services? Or does competition lead to a less equitable system of state and local finance? Is competition a zero-sum game, or does it expand public benefits for all parties?

This report focuses on competition among states and among local general governments, or interstate and interlocal competition. These types of competition will be referred to as interjurisdictional competition. Elsewhere, certain analysts refer to these forms of competition among governments as horizontal intergovernmental competition or horizontal competition.

Competition between the federal government and the states and between states and local governments also exists. These types of competition have been referred to variously as intergovernmental competition, vertical intergovernmental competition, or vertical competition.[13] An examination of these forms of competition is beyond the scope of this report.[14]

Another topic that is beyond the scope of this report is explicit consideration of alternative policy proposals that would increase or decrease interjurisdictional competition. The major aim of this report is to improve understanding of the nature, benefits, and costs of interjurisdictional competition. It would require further study, building on this report, to evaluate **particular policy** proposals that would modify the extent of interjurisdictional competition.

Design of the Report

The next chapter, "What is Interjurisdictional Competition and How Can We Measure It?" addresses these and other questions:

- What do we mean by interjurisdictional competition?
- For what are state and local governments competing?
- What are the alternatives to interjurisdictional competition?
- To what extent can the economic concepts of competition be applied to competition among governments?
- Can the same concepts be applied to localities and states, or are there significant differences between interlocal and interstate competition?
- Can we develop empirical measures of the extent of competition?
- Can we tell whether competition is increasing or decreasing in the American federal system?

The third chapter examines the federal government's role in setting the framework for interjurisdictional competition. The federal role is broken down into these aspects: the Constitution, the Supreme Court, federal laws and regulations, grants-in-aid, and tax expenditures aiding state and local governments. Federal policies affect the "rules of the game" for interjurisdictional competition; federal aid affects the relative ability of one government to compete with another. Federal policies also can change the incentives that state and local governments have for engaging in competitive behavior.

The next two chapters examine four different types of interjurisdictional competition. Chapter 4 focuses on the closely related concepts of tax and service competition. The chapter identifies several forms of tax competition and weaves together two sorts of empirical studies: one set that attempts to compare the competitive standing of different states or localities by measuring their differing effective tax levels, and the other that attempts to determine the effects of tax levels on business location, employment, and investment. The second half of the chapter examines some interstate differentials in expenditure levels, then reviews the available literature on the effects of service or expenditure differentials on the economic health of states and localities.

Chapter 5 moves on to regulatory competition and competition for economic development. Of the four types of interjurisdictional competition examined in this report, regulatory competition has been studied the least. Divergent views on the effects of state regulatory policies on a state's competitive position are summarized. The potential effects of state regulation on interstate commerce are then discussed. A review of the scant empirical evidence on the effects of regulatory policies on interstate competition for business follows.

State and local competition for economic development is the focus of much concern regarding interjurisdictional competition. These concerns are summarized, as are the economic development incentives that state and local governments use to compete with each other. Literature that evaluates the efficacy of state and local economic development efforts is reviewed, and some of the current trends in economic development are summarized.

Chapter 6 returns to the major questions that were raised at the beginning of this report:

- Under what circumstances can interjurisdictional competition be regarded as beneficial or detrimental?
- How does interjurisdictional competition affect equity and efficiency in the federal system?

The chapter describes how the understanding of interjurisdictional competition has changed since ACIR last examined this topic. It also notes particular ways in which the conventional wisdom regarding the effects of interjurisdictional competition has not changed over the last decade.

Summary of Major Findings

This concluding section of the chapter summarizes some of the key findings of the report.

Although the existence of interstate and interlocal competition is often noted by observers of American federalism, competition among governments has never been defined in an explicit and comprehensive manner.

This report offers two alternative definitions of interjurisdictional competition. One definition is that interjurisdictional competition consists of rivalry among governments in which each government is trying to win some scarce beneficial resource or in which each government is seeking to avoid a particular cost. For example, state and local governments compete for industrial plants that will provide jobs, for foreign investment, for high-income citizens, and for tourists. An alternative definition of interjurisdictional competition is the manner in which the free movement of goods, services, people, and capital constrains the actions of the independent governments in a federal system. An example is the constraint placed on a city's ability to aid the homeless that results from a belief that such aid will attract "undesirable" homeless people from other jurisdictions and encourage outmigration by "desirable" high-income families who would foot the bill. The first notion of interjurisdictional competition can be labeled "active rivalry" and the second, "implicit competition."

Understanding the nature of interjurisdictional competition is further complicated by the necessary distinction between competitive structure and competitive behavior. For example, by analogy with economic theory, one can label a metropolitan area with 300 local general governments as one with an effectively competitive governmental structure. It is likely, but not certain, that the governments in this metropolitan area will exhibit competitive behavior. For example, if these governments were able to form a cooperative governmental association that helped them to coordinate fiscal and regulatory policies, then these governments would not exhibit active rivalry, nor would a significant amount of implicit competition exist.

No ***definitive evidence was found to indicate that interjurisdictional competition has been increasing in recent years.***

Despite the absence of a generally accepted definition of interjurisdictional competition or a generally accepted measure of the extent of interjurisdictional competition, it is not uncommon to find assertions that interstate or interlocal competition has been increasing in recent years. Ronald Fisher has attempted to determine whether this assertion may be true.[15]

Fisher assumed for the sake of measurement that interjurisdictional competition limits the degree of fiscal diversity that state and local governments can maintain. He then calculated several measures of fiscal diversity for various years from 1971 to **1986.** Contrary to his working hypothesis, Fisher did not find that fiscal diversity had decreased over the period. In other words, Fisher did not find evidence that competition among state and local governments has increased over the last two decades.

There is much more to interjurisdictional competition than competing for potentially mobile businesses through the use of negotiated tax packages.

State and local governments compete along several dimensions. In addition to tax competition, state and local governments are involved in service and regulatory competition. In the service area, one might consider interjurisdictional competition in the areas of education, public welfare, and public works infrastructure. In the regulatory sphere, right-to-work laws and laws regulating workers' compensation insurance have been identified as potentially important to a state's business climate.

Furthermore, because taxes pay for services, tax competition cannot always be divorced from service competition. Thus, in many instances, it is better to speak of fiscal competition, which includes both tax and service competition. This view, taken to its logical extreme, has consumer-voters and business owners and managers shopping among communities for the best "package" of taxes and services.[16]

Even focusing on taxes alone, it is clear that tax competition is a broader concept than the crafting of special deals for identifiable business firms. The report distinguishes among four kinds of tax competition:

1. Competition via special tax exemptions, tax abatements, and the like.
2. Competition with respect to the levels of specific taxes.
3. Competition with respect to overall tax levels.
4. Competition in the attempt to export taxes to other state or local governments.

Evaluation of the results of tax competition will differ depending on which avenue for competition is the focus. For example, state policies that try to maintain generally low overall tax levels might be viewed more favorably than policies that allow a governor to negotiate on an individual basis with particular chief executive officers. In the first instance, no business **firm** can claim that a tax "giveaway" has created an inequity between an existing and an incoming firm.

Interjurisdictional competition serves as one regulator of the federal system.

Competition among governments is likely to place certain bounds on the actions of the 50 states and more than **80,000** local governments in our federal system. For example, what constraint prevents one state from levying a personal income tax at a 50 percent rate, or another from offering free college education to all state residents while another state abolishes its university system? These are extreme examples, but they make a point: interstate competition will tend to narrow, but certainly not eliminate, diversity among the states.[17]

If one jurisdiction levies too high a tax burden relative to others with which it competes for jobs and residents, without commensurately higher public services, economic growth will be slowed.[18] Similarly, if a state does not meet minimal national standards in its university system, it will have trouble attracting industry. The choice of locations that our competitive governmental structure presents to individuals and businesses constrains the range of policies government can adopt because, over time, individuals and businesses can "vote with their feet" and move to other jurisdictions.

Competition has been a key concept in economics ever since Adam Smith explained it in the ***Wealth of Nations*** **(1776).** According to Smith, competition is the force that turns individuals, each acting in **his** or her own self-interest, to benefit society as a whole. The interaction of self-interest and competition produces an economic system that appears to be regulated by a benign "invisible hand."

According to some economists, competition among governments may play a role parallel to that of competition in markets.[19] Just as market competition produces an economic system responsive to consumer needs, interjurisdictional competition can produce a government system responsive to voter desires. To some extent, both systems appear to be regulated by Smith's "invisible hand."

There is, however, a set of important circumstances in which the invisible hand is not benign. These are the circumstances of "market failure," namely, the inability of markets to provide certain goods either at all or at the most efficient level. An important type of market failure arises when an economic activity causes incidental benefits or damages to others ("third parties") and for which no mechanism exists to compensate or penalize those who initially generate the activity. Air or water pollution provides the classic example of such an "external" or "spillover" effect.[20]

Just as the analysis of private market competition has pointed to externalities as a major cause of market failure, the existence of spillovers between governments may negate the potential benefits of competition among governments. For example, competition among governments may have harmful effects when governments are allowed to "export" certain social costs (e.g., pollution or the burdens of providing welfare services) to residents of other jurisdictions.

Interjurisdictional competition does not necessarily depress state and local service or revenue levels.

In reviewing the history of state and local revenue systems, John Shannon argues that:

> The remarkable revenue performance of our 50 state-local systems since the end of World War II has knocked into a cocked hat the old conventional wisdom—that states and their localities were destined to have anemic revenue systems because they were "crippled by fears" of intergovernmental competition. , . . As a percent of gross national product, state-local own-source revenue has risen from 6.6 percent to 12.1 percent [from 1949 to 1987.][21]

Perceptions of state and local officials also provide evidence that competition does not necessarily hold down state-local spending or revenues. Parris Glendening, county executive of Prince George's County, Maryland, has described how competition with surrounding counties put pressure on his county to improve its school system. In order to pay for this, the county raised $100 million in additional revenues.[22]

Why did the previous literature maintain that interjurisdictional competition was bound to depress service levels of state and local governments? The old consensus focused almost totally on the tax side of the fiscal equation. This led to a confused analysis of the results of competition among governments. If high-income citizens and businesses cared only about the level of taxes they pay, competition would appear to lead to an ever lower level of taxation and, inevitably, to inadequate service levels.[23]

Recent research, which considers both taxes and expenditures, provides important additional evidence that interjurisdictional competition will not necessarily depress state and local service or revenue levels. Empirical evidence indicates that although a high tax level can reduce the attractiveness of a particular state or local government, a high service level (often measured by the proxy "expenditure level") increases the attractiveness of that same government. For example, empirical studies of capitalization, mobility, and the determinants of state economic growth have shown that, holding tax levels constant, higher spending on education tends to increase property values, attract new residents, and increase the rate of state economic growth.[24]

It is important to note, though, that the effects of interjurisdictional competition on state and local spending vary by service area. It is possible for interjurisdictional competition to promote higher service levels in certain areas and to depress service levels in other areas. Even those with a generally favorable view of the effects of interjurisdictional competition are concerned about the effects of such competition on the level of services in those areas that are likely to generate significant beneficial spillovers (e.g., care for the homeless).

Current research confirms the tendency for interjurisdictional competition to reduce reliance on ability-to-pay taxes.

Another traditional concern regarding interjurisdictional tax competition has been that it appeared to pressure state and local governments to turn away from ability-to-pay taxes toward more regressive taxes. Wallace Oates and Robert Schwab recently reexamined the effects of interjurisdictional fiscal competition on the ability of governments to redistribute income.[25] They make two important points.

First, competition among governments produces a system in which all local government (and to a lesser extent state government) taxes will tend to become benefit taxes. That is, in equilibrium, the taxes that individuals and businesses pay will tend to equal the respective values they place on public services received. Thus, in a competitive environment, business taxes are unlikely to be used for social programs, parks, or education. Business taxes will, however, be of sufficient magnitude to pay for such business-specific services as police protection, public utilities, and roads.

The second major point is that any evaluation of this tendency for state and local governments to adopt benefit taxes depends crucially on what one regards as the proper federal role in redistributive policy. If the federal government provides the right amount of support for low-income households, the state and local fiscal system that results from a competitive environment will be efficient and will not create inequities. If the federal government does not fulfill the redistributive role, however, one may be critical of interjurisdictional fiscal competition for making it impossible for state and local governments to fill that gap.

Efforts to use tax incentives to attract mobile industry are still generally in disfavor among public finance experts.

Current research on interjurisdictional Competition is still generally critical of individually negotiated tax packages designed to lure new industry or to retain existing industry. Some of the standard criticisms apparently still hold, and, in some cases, these criticisms have been buttressed by additional research.

Dick Netzer's analysis of the explicit efforts by states and localities to influence location decisions of attractive business firms through tax incentives concludes that such activity is likely to have a negative-sum effect until all jurisdictions are offering equal incentive packages, at which time, these efforts at economic development collectively have a zero-sum effect. He comes to this conclusion from the assumption that tax incentives merely shift economic activity around, and, in many cases, shift the activity from its most productive use to a less productive use.[26]

Larry Ledebur and William Hamilton take another tack in their criticism of state and local tax concessions to business. They have done cost-effectiveness studies for a variety of such incentives, where the benefits measured are those received by the firm, and the costs are the opportunity costs borne by the subsidizing government. Ledebur and Hamilton conclude that tax concessions are not cost-effective. State and local government revenues forgone through tax expenditures are greater than benefits derived from recipient firms. It is unlikely that any form of tax concession can be cost-effective.?'

Ledebur and Hamilton's criticism of tax incentives used to attract mobile businesses is even more condemnatory than Netzer's. According to Netzer, tax incentives are a waste of resources from society's point of view; according to Ledebur and Hamilton, tax incentives are likely to be a waste of resources for the jurisdiction offering them, too.

A few analysts note instances in which special tax incentives can be sensible. For example, Nonna Noto describes the process a community must go through in an economic crisis. She points out the high economic and psychic costs incurred by households forced to uproot themselves in the search for new jobs. When all these costs are accounted for, the benefits of special tax concessions may exceed the costs. Noto points out further that rigorous analysis must be done to determine when, if ever, targeted tax concessions might be preferred to general tax cuts. The old consensus focused on the inequities of favoring a mobile firm over an immobile one. However, if firms differ in the benefits they can offer to communities in which they can potentially locate, it is not clear that their tax liabilities should not differ also.[28]

Notes

[1] U.S. Advisory Commission on Intergovernmental Relations, ***Interstate Tau Competition*** (Washington, **DC, 1981).**

[2] ACIR, ***Interstate Tax Competition,*** p. 1. The report found that, "Tax competition between neighboring states has not yet become a serious problem for our federal system," and that, "Short of highly coercive or discriminatory legislation, Congress appears to have no ready means to prohibit states from using tax and fiscal measures to try to enhance their individual development prospects." (pp. 4, 8)

[3] Ibid., pp. **9-12.**

[4] Charles **E.** McLure, Jr., "Tax Competition: **Is** What's Good for the Private Goose also Good for the Public Gander?" ***National Tar Journal 39*** (September **1986): 346.**

[5] Edgar K. Browning and Jacqueline M. Browning, ***Public Finance and the Price System*** (New **York** Macmillan Publishing Co., **1983)**, pp. **468-469.**

[6] Dan **R.** Bucks, "Tax Competition: Patent Medicine for Economic Anxiety,'' ***Multistate Tax Commission Review*** (May **1988): 1-4.**

[7] Paul Glastris, "Holdup in the Windy City," ***U.S. News & World Report,*** July 17, **1989,** p. **40**.

[8] See the articles in ***Intergovernmental Perspective*** **16** (Winter **1990**).

[9] See also John M. Kline, "The International Economic Interests of US. States," and John Kincaid, "The American Governors in International Affairs," ***Publius: The Journal of Federalism*** **14** (Fall **1984): 81-94, 95-114.**

[10] See especially Robert F Strauss, "The EC Challenge to State and Local Governments," ***Intergovernmental Perspective*** **16** (Winter **1990): 13-14.**

[11] U.S. Advisory Commission on Intergovernmental Relations, ***Significant Features of Fiscal Federalism, 1991 Edition, Volume II*** (Washington, DC, **1991**), Table **21.**

[12] ACIR, ***Interstate Tar Competition.***

[13] Some analysts are comfortable defining vertical competition **as** competition among governments at different levels. and horizontal competition as competition among governments at the same level. Other scholars strenuously object to naming levels of government in the federal system. For example, Daniel Elazar states that, "To the extent that those involved in American governance now conceive of the American federal system **as** a pyramid with federal, state, and local 'levels,' they have opened the door to the transformation of cooperative federalism into ***coercive fedemlisrn."*** Daniel J. Elazar, "Cooperative Federalism," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press, **1991)**

[14] Much of the literature on American federalism, particularly on cooperative federalism, examines relations between the federal government and state governments and, secondarily, between the federal government and local governments. Because this review focuses on the topic of interjurisdictional competition, most of the literature on cooperative federalism is beyond the scope of this report. Examples of this extensive literature include Edward **B.** Corwin, "National-State Cooperation: Its Present Possibilities," ***Yale Law Journal 46*** **(1937): 599-633;** Jane Perry Clark, ***The Rise of a New Federalism: Federal-State Coopemtion in the United States*** (New **York** Columbia University Press, **1938);** Daniel J. Elazar, ***The American Partnership: Intergovernmental Coopemtion in the Nineteenth Century United States*** (Chicago: University of Chicago Press, **1962);** Daniel J. Elazar et al., eds., ***Coopemtion and Conflict: Readings in American Fedemlisni*** (Itasca, Illinois: **F.** E. Peacock, **1969).**

[15] Ronald C. Fisher, "Intergovernmental Competition: A Summary Perspective and Agenda for Research," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press, **1991).**

[16] **Charles** Tiebout, "A Pure Theory of Local Expenditures," ***Journal of Political Economy 64*** **(1956): 416-424. The** Tiebout model stipulates a large variety of communities, each offering a different package of public services and taxes. On the assumption that all private goods are available at the same price, the individual selects a site in a manner that balances marginal site costs (e.g., housing **costs** plus taxes) with higher marginal evaluation of the public service package.

[17] **There** are cases that call for federal intervention. For example, a state should not be allowed to establish a toxic waste dump on top of a neighboring jurisdiction's underground water supply. Similarly, the federal government must enforce civil rights laws, the commerce clause of the Constitution, antitrust statutes, and the like.

[18] See Michael Wasylenko and Therese J. McGuire, "Jobs and **Taxes:** The Effect of Business Climate on States' Employment Growth Rates," ***National Tax Journal*** (December **1985): 497-511.**

[19] **Albert** Breton, "Towards a Theory **of** Competitive Federal**ism,"** ***European Journal of Political Economy*** (Special Issue) **3 (1987): 322.** Others caution, however, that it is difficult to demonstrate that in fact a relationship exists between the taxes whereby government **services** are financed and the demand of any one individual or firm for public **services.** See Andrew Reschovsky, "How Closely **Does** State and Local Government Behavior Conform to a Perfectly Competitive Model?" in Daphne A. Kenyon and John Kincaid, **eds.,** ***Competition aniong States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute **Press, 1991)**

[20] These circumstances are discussed in any standard public finance **textbook.** *See,* for example, Harvey **S.** Rosen, ***Public Finance,*** Second Edition **(Homewood,** Illinois: Irwin, **1988),** Chapter **7.**

[21] John Shannon, "Federalism's 'Invisible Regulator'—Interjurisdictional Competition." in Daphne A. Kenyon and John Kincaid. eds., ***Coinpetition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press, **1991).**

[22] Parris Glendening, "Protecting Citizens through Appropriate Cooperation and Limited Competition,'' in **U.S.** Advisory Commission on Intergovernmental Relations, ***Interjurisdic-***

tional Competition in the Fedeml System : A Roundtable Discussion (Washington, DC, 1988), p. 9.

[23] For example, the 1981 ACIR report argues, 'Although some tax concessions are self-limiting, the general concept of business tax relief is not. The pressure for an extension of tax concessions to business and individuals need never abate when proponents argue that the "tax breaks" do not shift taxes because they promote prosperity for everyone" (*Interstate Tar Competition*, p. 10).

[24] Wasylenko and McGuire conclude that spending on K-12 education is a strong determinant of employment growth rates in a state's retail trade and finance sectors. They also conclude, however, that tax and spending variables are not the most important factors likely to determine differential growth rates across states; nonfiscal policy factors (e.g., wage levels, energy prices, weather, income) are more important.

[25] Wallace E. Oates and Robert M. Schwab, "The Allocative and Distributive Implications of Local Fiscal Competition," in Daphne A. Kenyon and John Kincaid, eds., *Competition among States and Local Governments: Efficiency and Equity in American Federalism* (Washington, DC: The Urban Institute Press, 1991).

[26] Dick Netzer, 'An Evaluation of Interjurisdictional Competition through Economic Development Incentives," in Daphne A. Kenyon and John Kincaid, eds., *Competition among States and Local Governments: Efficiency and Equity in American Federalism* (Washington, D C The Urban Institute Press, 1991).

[27] Larry C. Ledebur and William W. Hamilton, "The Failure of Tax Concessions as Economic Development Incentives," in Steven D. Gold, ed., *Reforming State Tar Systems* (Denver: National Conference of State Legislatures, 1986) pp. 112-113.

[28] Nonna A. Noto, "Trying to Understand the Economic Development Official's Dilemma," in Daphne A. Kenyon and John Kincaid, eds., *Competition among States and Local Governments: Efficiency and Equity in American Federalism* (Washington, DC: The Urban Institute Press, 1991).

Chapter 2

What Is Interjurisdictional Competition and How Can It Be Measured?

This chapter begins to lay the groundwork for an evaluation of the benefits and costs of interjurisdictional tax and policy competition. Basic conceptual questions regarding interjurisdictional competition are examined, such as:

- What is meant by interjurisdictional competition? What are the alternatives to interjurisdictional competition?
- To what extent can the economic concepts of market competition be applied to competition among governments?
- In what manner does interjurisdictional competition serve to regulate the behavior of state and local governments?
- What factors affect the degree of interjurisdictional competition among governments? Are there significant differences between interstate and interlocal competition?
- Can empirical measures of the extent of interjurisdictional competition be developed? Is competition increasing or decreasing in the American federal system?

One of the findings is that implicit competition among state and local governments may be as important as active rivalry (e.g., for footloose industry or for the tourist dollar), which is the more obvious form of interjurisdictional competition. Economic concepts of competition are used to craft measures of the extent of competition among state and local governments. The empirical evidence is inconclusive as to whether interjurisdictional competition in the American federal system has been increasing or decreasing over the last few decades.

Definitions of Competition

Active Rivalry

Although the existence of interstate and interlocal competition is often noted by observers of American federalism, competition among governments has never been defined in an explicit and comprehensive manner. One definition is that interjurisdictional competition consists of rivalry among governments in which each government is trying to win some scarce beneficial resource or in which each government is seeking to avoid a particular cost.

This definition can be clarified with a few examples. States and localities compete for plants that will provide jobs for their citizens, for foreign investment, for high-income citizens, for tourists, and for skilled migrants. In the recent past, states and localities competed for federal grant money. Two hundred years ago, the original 13 states competed over ownership of the western territories. For example, in *The Federalist*, Alexander Hamilton describes the fierce competition between Connecticut and Pennsylvania over the land at the southern end of Lake Erie that is now Ohio.

State and local governments also compete to avoid bearing costs. Two hundred years ago. the states were involved in disagreements over who should foot the bill for the national debt generated during the war with England. An issue of current importance is which states will be the recipients of federally created dumps for low-level radioactive waste. In metropolitan areas, exclusionary zoning designed to keep out low-income citizens is still controversial.

Although this examination is confined to fiscal and regulatory competition among governments, active rivalry covers a very broad range of matters. For example, cities have been known to compete for sports teams by building attractive stadiums or by bidding for team franchises.

Implicit Competition

An alternative definition of interjurisdictional competition is the manner in which the free movement of goods, services, people, and capital constrains the actions of the independent governments in a federal system?

A simple example involves a central city's policy toward homeless individuals. City residents may prefer a generous policy of aiding the homeless, but will be constrained in their policy choice because a particularly generous policy could attract the homeless from surrounding jurisdictions. Alternatively, the relatively high tax levels needed to finance this form of income redistribution could drive high-income citizens from the central city to outlying suburbs. Furthermore, suburban governments would have an incentive to "free ride" on the generous policy of the central city. That is, they could take advantage of the central city's public welfare spending without having to contribute to the funding. For all of these reasons, the central city may be constrained in the range of policies toward the homeless it can adopt.

The first definition of interjurisdictional competition emphasizes rivalry and the efforts of states and localities to appropriate benefits or shed costs. That definition has the advantage of corresponding to our everyday usage of the term "competition," which we associate closely with active rivalry.

Our definition of "implicit competition," however, has the advantage of being more comprehensive. There are probably many examples of situations in which state and local government officials do not consciously set out to compete, but in which a situation of implicit competition arises inadvertently, such as the example given above of the potential repercussions of a central city's policy of aiding the homeless.

Alternatives to Competition

In order to understand the nature of governmental competition, it is useful to contrast competitive behavior with its alternatives. Instead of competing with each other, state and local governments can cooperate, collude, or be coerced or preempted by the federal government.* For example, local governments in a metropolitan area can cooperate in financing and constructing a mass transit system that will benefit the entire area.

Collusion is closely related to cooperation, but the term has a decidedly negative connotation. Collusion implies cooperation with the aim of defrauding some outside party. A possible example might be a joint effort by a group of neighboring states to raise business taxes at the same time so that business firms could not threaten to leave one state for its low-tax neighbor. From the business perspective, this could be labeled as collusive behavior.

A third alternative to competition is coercion by the federal government. By mandating the provision of minimum service levels or the adoption of laws or regulations, the federal government can preempt state or local government choice and prevent competition. The ways in which federal government policies affect competition among state and local governments will be discussed more extensively in Chapter 3.

Related forms of noncompetitive intergovernmental relations, which appear to be less important, are coordination and comity. Efforts to coordinate the behavior of different governments imply nearly the same behavior as cooperative efforts—with the difference being that the term "coordination" appears to put a greater emphasis on order. The term "comity" originally applied to relationships between independent nations. The term connotes an attitude of courtesy and the exercise of considerate behavior. To the extent that comity relates most closely to "good manners" among governments, it could be consistent with certain forms of competition as well as with cooperation.

Before moving to an analysis of the economic theory of market competition and of the extent to which that theory can be applied to interjurisdictional competition, it is important to note that competition coexists with its alternatives. This coexistence can be achieved because state and local governments operate simultaneously in many policy areas. For example, states cooperate in matters of tax administration while at the same time competing in their decisions regarding tax levels. States also can cooperate to promote exports of their products even while they compete for foreign investment,

It also is possible for a group of states or localities to cooperate in order to compete more successfully with the remaining governments. One recent example is the cooperative effort by officials in the District of Columbia, Iowa, Kansas, Oregon, Rhode Island, and West Virginia in launching a multistate lottery game.[3] By pooling lottery ticket sales among a group of states, bigger jackpots are generated, which in turn produce higher ticket sales and greater profits for the states. Because New York and Illinois currently offer the largest jackpots, these states have expressed concern that the new multistate effort could reduce their lottery profits.

Applying the Economic Concept of Market Competition to Governments

To understand competition among governments, it is useful to describe briefly the economic theory of market competition and then apply it to the relationship among governments in a federal system.

Competition has been a key concept in economics ever since it played a crucial role in Adam Smith's *Wealth of Nations* (1776). According to Smith, competition is the force that drives individuals, each acting out of self-interest, to benefit society as a whole. The interaction of self-interest and competition produces an economic system that appears to be regulated by a benign "invisible hand."

The economic theory of competitive markets has been developed considerably since the 1770s. Some of this development has involved an analysis of different types of markets. Economists usually distinguish among markets along a spectrum, from perfect competition, in which there are many buyers and sellers, to monopoly or monopsony in which there is a single seller or a single buyer. This development also has involved an examination of the beneficial results of competition. For example, economists have proved that under certain (restrictive) circumstances, a competitive economy can produce an equilibrium in which no individual can be made better off without making someone else worse off. Economists also have analyzed the problems with market competition, or in their terminology, the circumstances leading to "market failure." In our search for the answer to the question of whether interjurisdictional competition is good or bad for the federal system, it is natural to ask to what extent the economic concepts of market competition can apply to relationships among governments.

Market Analogy

Before focusing on the specific way in which economists use the term "competition," we must define the prior concept of market and note its applicability to governments. A market consists of buyers and sellers, with the buyers generally referred to as consumers and the sellers generally referred to as firms. In applying the concept of market to state or local governments, the government plays the role of the firm, and the taxpayer-citizen plays the role of the consumer.[4]

It is readily apparent that in some ways the market concept applies well to the relationship between a government and its citizens, and in other ways it applies poorly. In abstract terms, the relationship of a citizen to a state or local government in a federal system is parallel to the relationship of a consumer to a firm. The consumer purchases goods and services from the firm; the citizen pays taxes in order to receive government services. The consumer seeks to obtain the mix of goods and services in the marketplace that will maximize satisfaction, given a limited budget. Consumers will patronize firms that produce desired products and that offer those products at the lowest prices. Citizens also seek particular "packages" of goods and services from their government (e.g., quality education, adequate transportation services, and a safe community), and they prefer that the government offer the services in return for the lowest possible tax burden. If consumers do not like the product produced by a certain firm, they can stop buying the product. If citizens do not like the quality or the costs of goods and services the government provides, one option is to move to a different state or locality. (The same logic applies to nation-states, which is one reason why free societies guarantee the right of emigration.)

There also are several differences between the two types of relationships. Goods and services that a consumer purchases from a firm tend to be "private goods"; that is, their consumption does not ordinarily impose substantial "third party" or "spillover" benefits or costs on other people. When one buys a piece of furniture, for example, that action affects the purchaser's own comfort but no one else's, so long as the production of the item did not harm the general environment.

Goods and services produced by governments are more often "public goods"; that is, they tend to provide benefits for more than one individual at a time, and it is difficult or impossible to prevent those who do not contribute to their financing from benefiting from the service. If the police do a particularly good job of patrolling a neighborhood, for example, every individual in that neighborhood benefits automatically. The usual reason given for government provision of public goods is that the private market would not be able to provide them in the best quantity, if at all, because of the existence of the "free riders" who benefit from the good or service but do not contribute to its financing.

A second difference between the relationship of a consumer to a firm and the relationship of a citizen to a government involves the likely range and ease of consumer or citizen choice. A consumer setting out to buy a jar of peanut butter may be able to choose between a half-dozen brands in a single store and, in addition, have a half-dozen stores to choose from. An individual in the role of local citizen is not likely to have as wide a range of choice in government service levels. Even if a metropolitan area has a dozen local governments with different school systems, thus providing citizens with a dozen choices, "shopping" from one community to another is much more difficult than going from store to store searching for one's favorite brand of peanut butter. Changing school systems involves moving to a new community. It also involves changing one's entire "package" of local government services at the same time. One analogy that has been presented is that shopping among local governments is like going to a supermarket and having to choose between a dozen already filled shopping baskets. Actually, the peanut butter-school system example overemphasizes the difference between some consumer and citizen choices. Consumer purchases of homes and automobiles, for instance, involve "packages" of attributes much as does a citizen's choice of a town to live in.

A third difference between the consumer-firm relationship and the citizen-government relationship is that the usual way in which the consumer obtains a product is by shopping among firms. If the product put out by one firm is unsatisfactory, the consumer will usually switch to another firm. An influential book by Albert O. Hirshman characterizes this mechanism as "exit."[5] In contrast, a common way for a citizen to attempt to improve garbage pick-up would be to call and complain to the city manager, voice a complaint at a city council meeting, or vote against incumbent city councillors at the next election. These options are examples of what Hirshman has labeled "voice."

The voice and exit mechanisms are used in both government and private market contexts: it is just that the relative reliance on the two mechanisms differs. A consumer can complain to a car dealer about a newly purchased automobile or call the toll-free number on a package of toothpaste to complain about the "new, improved'' taste. However, for most goods or services purchased in the private market, consumers are more likely to make use of the exit mechanism, that is, to switch products if they are dissatisfied. Likewise, citizens can move to a different city or state if they are dissatisfied with the government services they are getting for their tax dollar. In most cases, however, citizens are likely to stay where they are and make use of the voice mechanism.

Competition in Economic Theory

As a tool for understanding the behavior of consumers and firms, economists often build abstract models or theories. These theories are critical in understanding the primary forces underlying an economic system, but are not meant to describe accurately the details of actual market behavior at any particular time or place.

Economists have found the theory of "perfect competition" very useful in understanding the manner in which many markets work, such as the agricultural sector of our economy. The word "perfect" means that this model represents a market that is totally or completely competitive. The usual assumptions of the perfectly competitive model are:

1) There are many firms, each small relative to the size of the market.
2) Consumers and firms have full information on prices and product characteristics.
3) Individual firms do not differentiate their products from their competitors'; that is, products are homogeneous, not differentiated.
4) Entry into and exit from an industry are relatively easy.[6]

An important implication of these assumptions is that no one firm has any control over the price at which it sells its product.

Economists also have built a number of theories of market competition that apply in situations in which the assumptions of perfect competition do not even approximately hold. At the opposite end of the spectrum from the theory of perfect competition is the theory of monopoly behavior, in which a single seller is assumed to exist (e.g., utilities). In between theories of monopoly and perfect competition, economists distinguish between oligopolistically and monopolistically competitive markets. Monopolistic competition is said to hold when there are many sellers of a particular product, there is product differentiation, and each firm has some control over its prices. For example, the producer of Ivory Snow detergent can set its price for detergent somewhat above the average price of other detergents with confidence that some loyal customers will still purchase its product. A situation of oligopoly presumes that there are a few rival firms. A common example of an oligopolistic market is the automobile industry. Oligopolists also are generally presumed to have some control over their prices.

In examining the applicability of these various models to the American economy, William Shepherd distinguishes between markets controlled by monopolies or oligopolies and those that can be considered "effectively competitive."[7] According to Shepherd, effectively competitive markets are those with low bamers to entry by new firms and for which the top four firms control less than 40 percent of the market. Shepherd found that in **1980** over three-quarters of the U.S. economy could be considered effectively competitive.

In applying the economic theories of market competition to governments, it is clear that many state and local government "markets" do not come close to the conditions needed for perfect competition. Although there are approximately 40,000 local general governments in the United States, in a given metropolitan area in which a citizen **is** located, there may be very few. Both state and local governments belong to associations of governments and contract with each other; hence, in many cases, they do not operate independently. Knowledge is limited both on the part of government officials and on the part of citizens. Finally, although citizens can "exit" a particular government, it is much more difficult for governments themselves to enter or leave the "industry." New local general governments can be created only in unincorporated areas in certain **parts** of the country. To a lesser degree, new governments can enter a market through consolidation of existing governments or through creation of special districts.

Although perfect competition does not exist with respect to either local or state governments in the United States, there are few instances of monopoly or oligopoly government "markets." **A** degree of competition does exist, which varies from one **part** of the country to another. In some metropolitan areas, there are quite a few local governments. The New York Urbanized ***Area,*** for example, has 399 local general governments. The structure of such an urban area might be labeled "effectively competitive." Even though governments may try to cooperate, many times they are unsuccessful. Knowledge may be less than perfect, but with the presence of numerous citizens' groups, quite a bit of information is available to the interested citizen. Governments may be unlikely to enter or leave the market in a literal sense, but, in a more abstract way, there is mobility of governments. After Proposition **13 was** approved **by** California voters in 1978, a number of governments around the country became more restrictive in their fiscal policies. In a sense, they "left" the high-spending, high-taxing market and "entered" the low-spending low-taxing one.

The Tiebout Model

The most important model of competition among governments is the Tiebout model, set out in a seminal paper in 1956.[8] According to this model, which applies best to suburban governments in a metropolitan area, individual consumer-voters can choose among the "packages" of taxes and services offered by the various governments in a metropolitan area in much the same way that consumers can choose private goods in the competitive marketplace. Tiebout's model was inspired as a solution to the problem of providing the optimal level of public goods. Economists had proved that in the absence of spillovers or other important instances of "market failure," the private market would automatically provide the correct quantity of goods and services, but that there was no such automatic solution for public goods. Tiebout's model was an attempt to offer **a** solution for public goods provided by local governments.

The Tiebout model makes the following assumptions about local governments:

1) Citizens are fully mobile between communities and will move to the community that best satisfies their preferences.
2) Citizens have full knowledge of all community characteristics.
3) There are many different types of communities among which citizens can choose.
4) There are no spillovers from one community to another (an example of a beneficial spillover is the effect on one town of the spraying for mosquitoes done by an adjoining town).
5) Jobs do not impose locational constraints on individuals (sometimes described as the assumption that all citizens earn dividend income).
6) **A** community's optimal size, meaning that size for which the average cost of producing a particular package of public goods and services is minimized, can be determined.
7) Each community endeavors to reach its optimal size?

These assumptions are similar in nature to the assumptions **of** the perfectly competitive model of market competition. **A** considerable economics literature has grown up that extends, criticizes, and tests the Tiebout model. In various sections of this report, we will examine the extent to which the Tiebout assumptions are applicable to different types of governments and the extent to which the Tiebout model helps us understand the nature and effects of competition among governments.

Competition as Regulator of the Federal System

Another economic concept that can be applied to state and local governments is the idea that interjurisdictional competition serves as a hidden regulator of the federal system just as the "invisible hand" of the market serves to regulate private market decisionmaking.

One can argue that, just as a change in consumer tastes results in a new price-quantity configuration in the private markets, so too can a change in voter tastes result in a new configuration of state or local government policies. During the 1970s, it became apparent that many voters were interested in limiting the growth of government spending. Because of the passage in 1978 of Proposition **13** in California, a law which continues to be one of the most important fiscal limits on local governments, 1978 is generally viewed as a watershed year in state tax policymaking. After 1978, state after state adopted tax and expenditure limitations and other tools for encouraging governmental fiscal discipline. It can be argued that, once voters decided that they preferred less growth in government spending, state and local government policies gravitated toward a new equilibrium characterized by slower growth in the level of government services. To the extent that active rivalry or implicit competition among governments contributed to this change in state and local government policies, interjurisdictional competition can be characterized as inducing government responsiveness to citizen demands, or as a hidden regulator of state and local government behavior.

John Shannon is one of the first analysts to examine the role of interjurisdictional competition as a regulator of the federal system." Shannon argues that interjurisdictional competition puts pressure on state and local governments to hold down taxes at the same time that it encourages them to offer attractive public services. He uses the analogy of a naval convoy to describe how the twin forces of tax and expenditure competition regulate the fiscal actions of state governments:

> The behavior of our states resembles 50 ships sailing in a great naval convoy during wartime. The farther any state moves ahead of the convoy on the tax side the greater becomes the risk of tax evasion, taxpayer revolts, and the loss of economic development to states pursuing more conservative tax and spending policies. By the same token, the farther any state falls behind the convoy in the public service area the greater becomes the risk that it will lose economic development to states providing a higher quality of life, especially public education."

Shannon argues that some agent must place limits on fiscal diversity in the federal system, and that interjurisdictional competition plays this role. He concludes that competition is a more benign regulator of state fiscal behavior than its likely alternative, the federal government.

One may ask why regulation of state and local governments is necessary, given that democratic governments are supposed to be responsive to their electorates. Thomas Dye argues that democracy alone is not sufficient to make government responsive to citizen desires. His investigation of politics and public policy among the states leads him to conclude that party competition is absent in many states and that even in states with active party competition, this competition does not translate into policy alternatives offered to the voter. For these reasons and others, Dye argues that competition among governments is a necessary auxiliary mechanism for controlling government behavior.[12]

A Dynamic Theory of Economic Competition

The standard theory of economic competition described above has been criticized as being too static a description of market activity. That theory focuses on price and quantity of products, but tends to ignore the role of innovation and of the entrepreneur. Certain economists who are dissatisfied with the neoclassical approach described above have looked back to Joseph Schumpeter's economic theories to craft a different approach to market competition.[13]

For example, Reuven Brenner defines market competition as a situation in which "businessmen compete with ideas to find a combination of customers and services with respect to which they have an advantage over those whom they perceive as their competitors." Brenner would have us measure the degree of competition within a market by the "firm's relative rate of innovation, as measured by the fraction of sales of new products in the firm's total revenues."[14] Brenner places entrepreneurs, inventions, and innovations at the center of his market theories.

Albert Breton also looks to Schumpeter's theories when analyzing competition among governments.[15] He describes politicians as innovators who strive to find new tax, expenditure, and regulatory policies that can gain or increase the support of their citizens. The threat of potential exit by people or capital may motivate politicians to adopt particular policy innovations. Breton points to the large literature in political science and sociology on the diffusion of policy innovations as important evidence of competition among state and local governments.[16]

Taking a clue from both Breton and Brenner, we might measure the degree of competition among governments by the rates at which new policies are adopted. One such measure is described below in the section on alternative empirical measures of the relative degree of interjurisdictional competition.

The Link between Market Structure, Conduct, and Performance

Industrial organization, an entire field within economics, studies the relationship between market structure and the conduct of firms within that market, and finally, the link to industry performance. For example, to the extent that a market approximates the assumptions of perfect competition, a market is said to exhibit an effectively competitive structure. That structure, in turn, is associated with particular types of firm behavior. Alternatively, an oligopolistic market generally leads to particular forms of business conduct and to particular characteristics of market performance.

Economists have found that less competitive market structures tend to go hand in hand with higher prices, reduced output, and greater inefficiency in production (i.e., production at higher than minimum average cost). There also is some evidence that competition promotes the discovery of new inventions and innovations. It is not clear that more competition is always better, however. For example, in a fiercely competitive market, entrepreneurs may not have the opportunity to gain substantial rewards for new inventions. Their competitors may be able to enter any new market so quickly that any excess profits are quickly driven to zero. For that reason, some analysts have argued that a degree of monopoly power is most conducive to a high rate of innovation.[17]

As economists have turned their attention beyond for-profit firms, they have found market structure to be important in the equilibrium outcome in other arenas. For example, even though it is often assumed that nonprofit organizations seek to maximize output, by analyzing nonprofit behavior within a competitive market, it is possible to show that competition will force the nonprofit firm to act just like a for-profit firm. For example, in equilibrium, the nonprofit hospital in a competitive market will produce no more output than would a for-profit hospital, and again like a for-profit, will produce this output at minimum cost.[18] This type of result naturally leads to the question of whether the structure of government "markets" will have an important effect on the nature of government policies. In Chapter *6*, we examine the empirical evidence to date on the relationship between the level of local government spending and the structure of local government "markets" in different states and metropolitan areas.

Market Failure

A final area of economic analysis of competitive markets that we will find useful in our evaluation of interjurisdictional competition is the concept of "market failure." As mentioned above, economists have shown that the private market tends to produce the optimal quantity of goods and services except under conditions of so-called market failure.[19] Some of these instances of market failure include situations of natural monopoly or the existence of public goods. Economists also have noted that the unassisted private market is unlikely to achieve the best distribution of income or to maintain full employment with stable prices. In many of these instances, government intervention has been called for.

The type of market failure that will be most important in this discussion of competition among governments is the existence of beneficial or harmful spillovers. In the private market, a beneficial spillover is a side effect with a positive effect on individuals who are not parties to the market transaction. For example, pollution control equipment installed at a manufacturing plant provides beneficial spillovers to neighbors and people downwind of the plant who breathe cleaner air. In the absence of legal or political pressure, however, the owner has little incentive to take into account benefits to others and is unlikely to spend a sufficient amount of money on pollution abatement. In general, individuals tend to consume too little of goods exhibiting beneficial externalities, while business firms tend to produce too small a quantity of goods and services exhibiting beneficial externalities. The opposite tendency holds for the consumption or production of goods and services exhibiting harmful spillovers.[20]

The types of spillover effects relevant to our analysis of interjurisdictional competition are spillovers of government service benefits or costs and the ability of one government to "export" taxes to citizens of another jurisdiction. An example of the first is the benefit that citizens across the country derive from a high-quality system of higher education provided by a state whose citizens are likely to move to other states during their lifetimes. An example of tax exporting is the ability of Nevada to shift some of its revenue burden to residents of other states by its heavy reliance on taxes with a disproportionate burden on tourists (e.g., gaming and sales taxes).[21]

Factors Affecting the Degree of Competition among Governments

We can use the economic theory of the determinants of a competitive market structure to predict what factors are likely to increase interjurisdictional competition. At the most fundamental level, the degree of competition in our federal system will depend on the number of governments and on the range of policy variables along which they compete (e.g., their range of fiscal and regulatory powers). Thus, we expect that, all else being equal, competition will be greater among the suburbs in a metropolitan area with 50 suburbs than among the suburbs in a metropolitan area with five suburbs. Likewise, competition among local governments in a state where education spending can vary among those governments will tend to be greater than the competition among local governments in a state like Hawaii, where public elementary and secondary education is provided by the state rather than by local governments.

A further factor affecting the level of competition is the potential for new entrants into the governmental market. Individuals in metropolitan areas in the United States have the option of moving to exurbia, where, at some point in the future, a new local government may be incorporated. These individuals can look forward to choosing the government policies that best suit them in a newly formed government. Another important consideration is the adequacy of information provided to individuals and firms. If citizens of a particular city are not aware that a neighboring city provides essentially the same level of services for a lower tax rate than their home city, the two cities will not be in competition.

Once individuals and firms have knowledge about potential choices, the next consideration is their degree of mobility. An individual or the owner of a firm may be reluctant to move to a new location for many reasons, including family ties, loyalty to the city or state, or attachment to the physical surroundings. All of these attachments reduce the degree of competition among governments. Of course, when considering the mobility of a business firm's assets, such personal ties are not generally important, thereby tending to increase capital mobility, all else being equal. Mobility also is affected by other factors external to individuals or firms. The better the transportation system, all else being equal, the greater the mobility.

Because the amount of information available to citizens and business firms is far greater now than it was even a decade ago and ease of mobility has improved enormously over the years, competition will tend to be increased among governments. As our economy and population continue to become more interdependent, more governments become potential competitors.

The focus so far has been on the factors affecting the competitive structure of state and local governments. It is important to note, however, that there is a distinction between a competitive market structure and competitive behavior. Even though citizens may have a wide range of choice among state governments, if these governments act in a conforming way or actively collude with each other, competition will be less. For example, if cities in a metropolitan area adopt tax-base sharing for new manufacturing or commercial development, interjurisdictional competition for new development will be reduced greatly. Whereas market structure can indicate the likely degree of competition, market structure alone does not determine the degree of competitive behavior.

How Competition Is Likely to Vary by Type of Government

Now that we have discussed the various factors affecting the degree of competition among governments, it is a straightforward matter to discuss how competition is likely to vary by type of government. This section will focus on competitive structure rather than on competitive behavior, because of the lack of information on the latter.

At an elementary level, because there are more local governments than there are states, we expect the degree of competition to be greater among local governments than among states. Because of mobility and information factors, we expect that interjurisdictional competition in sparsely populated areas will be less than in densely populated areas. If the relevant market area includes all local general governments within a certain number of square miles, then there will be fewer competitor governments in a sparsely populated area than in a densely populated area.

We expect that central cities and suburbs will be competitors, but these two types of governments have very different characteristics. Many suburbs can offer lower housing costs and lower crime rates, but also fewer cultural opportunities and greater commuting burdens. Many suburbs are close competitors; that is, they compete for the same type of individual or business firm. There also are instances in which suburbs purposely differentiate themselves. One suburb may aim for the lowest possible tax rate; another may aim for the highest quality public schooling. Whether suburban governments offer differentiated tax-service packages will depend on the degree of heterogeneity of citizen preferences. The more heterogeneous are citizen preferences and the more easily citizens with different preferences can congregate in a particular suburb, the greater will be the extent to which suburbs will pursue the product differentiation strategy.

Special competitive situations arise when a Metropolitan Statistical Area (MSA) includes more than one central city and, in addition, spans more than one state. Because MSAs are relatively integrated economic units, the availability of information across these metropolitan areas and mobility within them are likely to be particularly high. This will tend to increase interjurisdictional competition.

A final type of interjurisdictional competition, interregional competition, is the most difficult to analyze because it is likely to be characterized by changing coalitions. There is no stable group of regional coalitions whose structure can be analyzed in order to determine its degree of competitiveness.

This is well illustrated by the recent competition among the states for the location of the federal government's atom smasher known as the superconducting super collider.[22] The U.S. Department of Energy has estimated that 16,000 contiguous acres will be needed for the project. California estimated that the super collider could produce a yearly tax windfall for local governments in the host state of approximately $1 million. Because of the size of the project, its benefits to state and local governments may well be regional in nature.

Before finally settling on a site in Texas, the Energy Department considered 42 sites in 25 states. In the process, 14 governors cooperated in backing five states that they thought had the best chances. For example, South Dakota's governor had support from the governors of Iowa, Minnesota, Nebraska, and North Dakota for his state's proposal, appropriately entitled "The Northern Plains Super Collider Effort." As the selection process progressed to the choice of finalists, a news article stated, "The first round of cooperative state efforts may not be the last. Governors indicate they might be willing to form new alliances to back the finalists."[23]

There are, of course, other kinds of issues that generate regional coalitions. During the height of the worldwide unitary tax issue, states such as California, Montana, North Dakota, and New Hampshire were collaborators. In times of an agricultural recession, another group of states is likely to join efforts to persuade the federal government to provide aid for farmers. There are different coalitions during each period of history. During the Constitutional Convention, there was an extended disagreement between the large states and the small states regarding the appropriate type of state representation in the U.S. Congress.

The Relationship between Competition and Diversity

The relationship between interjurisdictional competition and diversity turns out to be quite complex. Competitive behavior can imply either a move toward diversity or a move toward conformity, depending on whether a government is acting in the role of leader or follower. This can be illustrated with an historical example of interstate tax competition over the imposition of death (either estate or inheritance) taxes. Between 1885 and 1916, most states adopted death taxes.[24] As J. Richard Aronson and John L. Hilley described subsequent developments:

> In November 1924, by constitutional amendment, [Florida] forbade enactment of either inheritance or income taxes. The purpose of the move was only too apparent; by supplementing the attractions of its climate with the establishment of a tax haven, Florida hoped to induce rich people to choose Florida as their home. Since domicile for the purpose of taxation was easy to establish, the other states had reason to fear the migration of estates beyond their jurisdiction. Nevada promptly met the threat, or rather imitated Florida, by passing a similar constitutional amendment in July 1925; California, which had up to this time been the natural competitor of Florida as a domicile for retired millionaires, discussed the need for parallel action.[25]

Florida's adoption of a constitutional amendment banning legislative enactment of inheritance or income taxes was an innovative measure, the aim of which was to increase the state's share of high-income individuals. Florida's action also increased the diversity among state tax structures. The states that imitated or considered imitating Florida were embarking on conforming actions of a competitive nature. Their aim was either to maintain or to enlarge their share of the nation's high-income individuals. Although competitive behavior in the guise of policy innovation may first contribute to fiscal diversity, as other states attempt to maintain their competitive position, the competitive behavior of the "catch-up" states reduces diversity.[26]

Shannon's discussion of interjurisdictional tax and policy competition looks at the relationship between competition and diversity in a different light.[27] His convoy analogy leads him to argue that interjurisdictional competition places limits on how different one state or local government can become relative to other governments. He points to New York's 1987 cuts in income tax rates as evidence of the pressure of interstate competition on New York's propensity to levy relatively heavy tax burdens and fund a relatively high level of public services. Conversely, he uses Mississippi as an example of a state with a relatively poorly funded education system that was nudged by North Carolina's example to raise taxes and improve funding for education.

Shannon is looking not so much at the dynamic process of interjurisdictional competition as at the equilibrium tendencies of the system. His hypothesis will tend to be correct in the long run to the extent that citizens in different states or localities have similar tastes for public services. If citizens of adjoining state or local governments do not differ greatly in the government services they desire, they can use the performance of neighboring governments as a "yardstick" for judging the competence and responsiveness of their own governments. Such "yardstick" competition in the face of similar preferences for government services on the part of citizens is likely to reduce fiscal diversity in the federal system.

However, if citizen preferences vary substantially, governments will tend to diversify as they attempt to satisfy the particular tastes of their citizens. At the same time, the efficiency of their performance is less susceptible to monitoring through the "yardstick" of other governments' performance. Under these circumstances. the equilibrium fiscal pattern resulting from interjurisdictional competition will exhibit a significant degree of diversity.

Measuring the Degree of Interjurisdictional Competition

Very little research has been done to measure the degree of competition among local governments, state governments, or regional associations of governments. One stimulating piece of research is an analysis by William Fischel of the competitive structure for the 25 largest urbanized areas in the United States. His purpose was to test the applicability of the Tiebout model and determine the potential for local governments to act like monopolists in the exercise of their zoning powers.[28]

Fischel's innovation is an application of a measure of market concentration from the industrial organization field of economics to local governments. A commonly used measure is the four-firm concentration ratio. which gives the percentage of the market (usually measured by sales) held by the four largest firms in an industry. For example, in 1982, the top four breakfast cereal makers shipped 86 percent of the nation's cereal, which makes

Table 1
Suburban Fragmentation Data for the Largest Urbanized Areas,' in Population Rank Order

	Urbanized Area (UA)	Entire Urban Area: Number of Local Governments[3] (1)	Entire Urban Area: Average Population of Suburbs (2)	Four Largest Suburbs Concentration Ratio[2]: Percent UA Land (3)	Four Largest Suburbs Concentration Ratio[2]: Percent Suburban Land (4)	Four Largest Suburbs Concentration Ratio[2]: Average Land Area (square miles) (5)
* 1.	New York	399	18,796	10%	12%	60.0
* 2.	Los Angeles	104	47,785	6%	10%	25.3
* 3.	Chicago	178	17,342	5%	7%	16.8
* 4.	Philadelphia	166	12,560	11%	13%	20.8
* 5.	Detroit	97	25,616	16%	19%	35.2
* 6.	San Francisco	58	33,525	17%	21%	29.5
* 7.	Boston	78	26,123	11%	12%	19.0
8.	Washington, DC	18	101,469	78%	89%	96.2
* 9.	Cleveland	91	13,423	15%	17%	24.8
*10.	St. Louis	116	10,963	11%	13%	12.6
*11.	Pittsburgh	180	7,407	12%	14%	18.5
*12.	Minneapolis	89	11,016	20%	23%	35.9
13.	Houston	30	15,395	19%	72%	25.5
14.	Baltimore	4	224,674	75%	100%	77.1
15.	Dallas	23	22,467	29%	48%	49.4
*16.	Milwaukee	41	13,384	30%	38%	34.7
17.	Seattle	29	24,209	50%	69%	52.1
18.	Miami	22	42,133	78%	90%	50.4
19.	San Diego	12	45,854	32%	74%	30.9
20.	Atlanta	26	27,032	51%	74%	55.1
*21.	Cincinnati	79	8,436	14%	19%	12.1
22.	Kansas City	46	13,332	31%	86%	37.9
*23.	Buffalo	26	24,953	28%	35%	15.1
*24.	Denver	25	22,193	21%	31%	15.4
25.	San Jose	15	41,523	27%	47%	18.8

[1] An Urbanized Area is the part of an SMSA with population density exceeding 1,000 per square mile, excluding nonresidential areas. For a complete definition see 1970 *Census of Housing, Vol. 1, Housing Characteristics, Appendix A*. Data used are from the 1970 Census.

[2] The concentration ratio is the percentage of urbanized area land (or suburban land) occupied by the four largest suburbs.

[3] Number of local governments with final zoning authority.

* Concentration ratio less than 40 percent.

Source: Table 1 in William A. Fischel, "Is Local Government Structure in Large Urbanized Areas Monopolistic or Competitive?" *National Tax Journal* 34 (March 1981): 95-104, with minor modifications.

this a very concentrated, and thus not very competitive, industry. In contrast, the top four radio and TV equipment firms accounted for only 22 percent of the market, which gives this industry an effectively competitive structure.[29] Recall that William Shepherd classified all industries in which the top four firms controlled less than 40 percent of the market as "effectively competitive" in his empirical study of the extent of competition in the U.S. economy.

Fischel calculated a similar measure for Urbanized Areas, which are the most densely populated portions of SMSAs. Table 1 shows the percentage of total Urbanized Area land occupied by the largest four suburbs and, alternatively, the percentage of suburban land in the total Urbanized Area accounted for by the largest four suburbs. Because of his interest in zoning, Fischel limited his analysis to those governments with final zoning authority. He concludes that only three large Urbanized Areas appear to have a monopolistic local government structure: Washington, Baltimore, and Miami.[30] For example, the Baltimore Urbanized Area has only four suburban governments with final zoning authority. Therefore, the concentration ratio calculated with respect to suburban land is 100 percent. One implication of this finding is that the structure of these metropolitan areas lends itself to restrictive land-use policies. That is, potentially, individual governments *can* exert significant market control.

In contrast, Chicago has one of the most competitive local government structures. The largest four suburbs account for only 5 percent of the total land in the Urbanized Area, and only 7 percent of the total suburban land in the Urbanized Area. Of the 25 urban areas examined by Fischel, 15 have concentration ratios less than 40 percent, thus putting them in the category of "effectively competitive" markets.[31] The structure of governments in these metropolitan areas gives no individual government the ability to enforce restrictive land use policies.

One deficiency of the study, which Fischel points out, is that it does not account for cooperative arrangements among local governments, such as the tax-base sharing arrangement in the Minneapolis-St. Paul area. Another way to state this deficiency is to note that a measure of competitive structure has been developed, but that the extent of competitive behavior has not been tested.

A research approach for extending Fischel's study could involve the following steps. First, the computation should be limited to either state or local governments. Second, the range of policy dimensions must be specified. Although Fischel's analysis focused on local zoning powers, most governments with zoning authority are also local general governments. To focus on a government service not always provided by general governments (e.g., education), the analyst would have to count school systems and calculate the concentration ratio for the largest school districts in each metropolitan area. In order to measure the changing degree of competition over time, these computations would be required for different years, with appropriate adjustments made for the changing market definitions. For example, 20 years ago, the suburbs to which a Washington, DC, worker could realistically commute were fewer than they are today, due to the extension of the subway system and improved housing opportunities in the suburbs. Therefore, the relevant land area for computing most concentration ratios in the Washington, DC, area is greater today than it would have been 20 years ago.

Fischel's methodology can be used to measure the extent of competitiveness built into the structure of a group of governments. Chapter 6 summarizes the empirical literature that relies on a measure of competitive structure such as Fischel's to test whether a greater degree of potential interjurisdictional competition tends to reduce the level of government spending.

Alternatively, it is possible to rely on Brenner's theories to measure directly the extent of interjurisdictional competitive behavior. Brenner suggests that the rate of innovation by business firms in a particular market indicates the degree of competition within that market. Table 2 provides a preliminary application of Brenner's theory to state governments. For a number of the most important recent mechanisms for enforcing state government fiscal discipline, including tax and expenditure limitations, income tax indexation, program evaluation and sunset, state reimbursement of mandates on local governments, and tax expenditure reporting, able 2 indicates which states adopted such mechanisms from 1976-1986. The last column of the table indicates for each region the average proportion of the states adopting this particular set of fiscal discipline mechanisms. According to this methodology, the western states were the most competitive along the fiscal discipline dimension over the last decade, whereas the mid-Atlantic states were the least competitive.

Actually, considerably more research would be needed before using such a measure of the spread of policy innovations as an indicator of the level of competition among given groups of states. Although "diffusion research" has contributed at least 45 studies of the spread of policy innovations among the American states, not much is known about the theory of why states adopt policy innovations.[32] Breton interprets policy diffusion as an indication of interjurisdictional competition, but other interpretations also are possible. John Chubb, for one, argues that interjurisdictional competition is unlikely to be the primary force behind policy diffusion." Chubb reaches this conclusion because he argues that international research fiids the same pattern of policy diffusion across countries as American scholars have found across states in the United States, but competition across nations for citizens is unlikely to be much of a factor in the international arena.

Is Interjurisdictional Competition Increasing or Decreasing?

Despite the lack of a generally accepted measure of the extent of interjurisdictional competition, it is not uncommon to find assertions that interstate or interlocal competition has been increasing in recent years. Ronald Fisher has attempted to determine whether this assertion is true.[34] Fisher makes use of Shannon's hypothesis that interjurisdictional competition places limits on the degree of fiscal diversity that state and local governments can maintain. If one makes this assumption regarding the relationship between competition and fiscal diversity, one can argue that if competition becomes more heated the extent of fiscal diversity should decline, and vice versa.

Fisher calculates one measure of fiscal diversity: the coefficient of variation among states for per capita state-local expenditures, own-source revenues, and taxes for 1971, 1975, 1980, and 1986. Fisher finds that:

> If Alaska is excluded (and Alaska is a clear outlier recently), the distribution of per capita fiscal characteristics among the states has not really changed since 1971. If anything, the interstate variation in per capita taxes and own-source revenues has become a bit larger.

Fisher notes that not all scholars would agree that fiscal diversity should be correlated negatively with the degree of interjurisdictional fiscal competition. However, his results lead him to caution observers of state and local government that their impression of increasing interjurisdictional competition may be misleading. Their impression may arise not because such competition is increasing in some global sense, but because states and localities are adopting new competitive techniques (which we notice) while abandoning old ones (which we don't notice).

Conclusion

This chapter has examined a number of basic issues regarding interjurisdictional tax and policy competition. First, the chapter introduced two definitions of interjurisdictional competition—a concept that has not been defined in an explicit and comprehensive manner before. A distinction was made between active rivalry and implicit competition, and it was argued that implicit competition may be as important as the more visible active rivalry for

Table 2
A Decade of Adoption of State Fiscal Discipline Mechanisms, 1976-1986

Region and State	Tax and Expenditure Limitation	Income Tax Indexation	Program Evaluation and Sunset	Reimbursement of Local Mandates	Tax Expenditure Reports	Average Percent of Region Adopting
New England						43%
Connecticut			X	X		
Maine		X	X		X	
Massachusetts				X	X	
New Hampshire			X	X		
Rhode Island	X		X	X		
Vermont			X			
Mid-Atlantic						16%
Delaware			X			
Maryland			X			
New Jersey	X					
New York						
Pennsylvania			X			
Great Lakes						28%
Illinois			X	X		
Indiana			X			
Michigan	X			X	X	
Ohio						
Wisconsin		X				
Plains						26%
Iowa		X				
Kansas			X			
Minnesota		X			X	
Missouri	X			X	X	
Nebraska			X		X	
North Dakota						
South Dakota						
Southeast						25%
Alabama			X			
Arkansas			X			
Florida				X		
Georgia			X			
Kentucky						
Louisiana	X		X		X	
Mississippi			X			
North Carolina						
South Carolina	X	X	X			

high-income individuals and job-producing business firms. Competition was then contrasted with some of its alternatives, in particular, cooperation, collusion, and coercion.

Several economic concepts of market competition were summarized briefly and, to the extent possible, applied to interjurisdictional competition. In applying the economic theories of market behavior to relations among state and local governments, the role of governments is postulated to parallel the role of firms in market competition, and the role of citizens parallels the role of consumers. One important theme was the extent to which interjurisdictional competition can serve as a regulator of state and local fiscal behavior by placing limits on how high a jurisdiction's taxes may be raised, or on how little government can spend for certian public services, such as eduction.

Based on an analogy with traditional microeconomic theory, we argued that the degree of competition among governments in a particular geographic area is likely to be greater to the extent that there is a greater number of governments competing; the formation of new governments is possible; information about tax and service levels for the various governments is readily available; and individuals, goods, services, and capital are mobile. Based on these factors, interlocal competition, especially within metropolitan areas, is likely to be greater than interstate competition.

We summarized an empirical study by William Fischel, who attempted to determine whether the structure of large urban areas in the United States was competitive or monopolistic. Of the 25 urban areas he examined, by conventional measures of economic theory, 15 could be considered to be "effectively competitive," and only three to be essentially monopolistic.

Table 2 (cont.)
A Decade of Adoption of State Fiscal Discipline Mechanisms, 1976-1986

Region and State	Tax and Expenditure Limitation	Income Tax Indexation	Program Evaluation and Sunset	Reimbursement of Local Mandates	Tax Expenditure Reports	Average Percent of Region Adopting
Southeast *(cont.)*						
Tennessee	X		X	X		
Virginia						
West Virginia			X			
Southwest						45%
Arizona	X	X	X		X	
New Mexico			X	X		
Oklahoma			X			
Texas	X		X			
Rocky Mountain						48%
Colorado	X	X	X	X		
Idaho	X					
Montana	X	X	X	X		
Utah	X		X			
Wyoming			X			
Far West						55%
California	X	X		X		
Nevada	X					
Oregon	X	X	X			
Washington	X		X	X	X	
Alaska	X		X			
Hawaii	X		X	X	X	

Notes

Some of these fiscal discipline mechanisms have since expired.

Tax and expenditure limitations place limits on growth in state taxes or expenditures.

Indexing tax brackets, personal exemptions, and standard deductions prevent inflation from pushing taxpayers into higher marginal tax brackets.

Sunset provisions set an automatic termination schedule for government agencies, offices, commissions, or boards. To circumvent sunsets, legislatures must vote to reauthorize.

Mandate reimbursement legislation prohibits the state from imposing costly requirements on localities unless the state reimburses them.

Tax expenditure reports compile a list of tax expenditures appearing in the state tax code.

Sources: U.S. Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism, 1985-86 Edition* (Washington, DC, 1986); Karen M. Benker, "More State Budget and Tax Management Tools," Draft, September 12, 1984.

This chapter also explored a second approach for measuring the degree of interjurisdictional competition based on Schumpeter's economic theories, rather than on traditional microeconomic theory. From this approach, competitive behavior is observed directly, and the degree of competition is measured by the number of policy innovations adopted by a particular state or local government.

Finally, we addressed the question of whether interjurisdictional competition has been increasing in recent years. Both Shannon and Fisher argue that fiscal diversity may be inversely related to the degree of fiscal competition. Fisher does a simple statistical calculation of the coefficient of variation among states of per capita state-local expenditures, own-source revenues, and taxes for various years from 1971 to 1986. The evidence Fisher presents does not support the contention that fiscal competition among states has been increasing over the last two decades.

Having attempted to define and measure and to better understand the basic nature of interjurisdictional competition, we now turn to a second basic issue in the next chapter: in what manner does the federal government set the framework within which state and local governments compete?

Notes

[1] This definition was inspired by comments and notes provided by Gerard Brannon in an ACIR critics' session on a draft of this paper held on January 22, 1988. A third form of interjurisdictional competition, not analyzed in this paper, is termed "surrogate intergovernmental competition" by Albert Breton, who states that,

"if the citizens of a jurisdiction use information about the policies implemented in other jurisdictions to gauge and evaluate the performance of their *own* government, that process will increase electoral competition at home and thus incite their governing politicians to act to their benefit more than they otherwise would do." See Albert Breton, "The Existence and Stability of Intergovernmental Competition," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press, **1991).** One might also call this form of interjurisdictional competition "yardstick competition."

[2] See also various articles in John Kincaid, ed., "American Federalism: The Third Century," ***The Annals of the American Academy of Political and Social Science*** **509** (May **1990):9-152.**

[3] Andy Oakley, "Big States' Exit Won't Spoil Multistate Lotto," ***City & State,*** October **1987,** p. **32.**

[4] Of course, government provision does not always imply government production. For example, a local government can provide daily garbage pick up but contract with a private firm to perform the service. The analogy with business firms in the private market is their degree of contracting out or their degree of vertical integration.

[5] A.O. Hirshman, ***Exit, Voice, and Loyalty*** (Cambridge: Harvard University Press, **1970).**

[6] Karl E. Case and Ray C. Fair, ***Principles of Economics*** (Englewood Cliffs, New Jersey: Prentice Hall, **1989),** p. **55.** See also George J. Stigler, "Perfect Competition, Historically Contemplated," in George J. Stigler, ***Essays in the History of Economics*** (Chicago: University of Chicago Press, **1965),** pp. **262-263.**

[7] William G. Shepherd, "Causes of Increased Competition in the U.S. Economy, **1939-1980,"** ***Review of Economics and Statistics*** (November **1982): 613-626.**

[8] Charles Tiebout, "A Pure Theory of Local Expenditures," ***Journal of Political Econonry*** **64 (1956): 416-424.**

[9] Ibid., p. **419.**

[10] John Shannon, "Federalism's 'Invisible Regulator'—Interjurisdictional Competition," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press, **1991).**

[11] Ibid., **p. 8.**

[12] Thomas R. Dye, ***American Fedemlism: Competition among Governments*** (Lexington, Massachusetts: D.C. Heath Co., Lexington **Books, 1990).**

[13] J.A. Schumpeter, ***Capitalism, Socialism, and Democracy*** (New **York** Harper and Row, **1942).**

[14] Reuven Brenner, ***Rivalry: In Business, Science, among Nations*** (New **York** Cambridge University Press, **1987),** pp. **x-xi.**

[15] Albert Breton, "The Existence and Stability of Intergovernmental Competition," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Fedemlism*** (Washington, DC: The Urban Institute Press, **1991).**

[16] See, for example, Robert L. Savage, ed., "Policy Diffusion in a Federal System," ***Publius: The Journal of Federalism*** **15** (Fall **1985):** entire issue.

"Richard G. Lipsey, Peter **O.** Steiner, and Douglas D. Purvis, ***Economics*** (New York: Harper **&** Row, **1984),** p. **315.**

[18] Timothy **J.** Goodspeed and Daphne **A.** Kenyon, "The Nonprofit Sector's Capital Constraint: Does It Provide a Rationale for the Tax Exemption Granted to Nonprofit Firms?" draft, January **1991.**

[19] In a perfectly competitive market, each firm will produce output up to the point where price equals marginal cost. Since we assume that in a perfectly competitive market price indicates the marginal benefit to society of producing one more unit of a good, and social welfare is maximized when each commodity is produced such that its marginal benefit equals its marginal cost, the perfectly competitive market produces the optimal quantity of goods and services.

[20] In the terminology of economists, spillovers arise when private marginal benefits or costs no longer equal social marginal benefits or costs. In the pollution control equipment example above, the operation of the private market results in investment in pollution control technology such that the private marginal benefit equals the marginal cost. However, at the private market equilibrium, social marginal benefits exceed marginal costs, meaning too little is spent on pollution control equipment from society's point **of** view.

[21] Robert D. Ebel, ed., ***A Fiscal Agenda for Nevada*** (Reno and Las Vegas: University of Nevada Press, **1990).**

[22] Elizabeth Voisin, "Governors Bid Together for Federal Atom Smasher," ***City & State,*** October **1987,** p. 20.

[23] Ibid.

[24] **U.S.** Advisory Commission on Intergovernmental Relations, ***Coordination of State and Fedeml Inheritance, Estate and Gift Taxes*** (Washington, DC, **1961),** p. **27.**

[25] J. Richard Aronson and John L. Hilley, ***Financing State and Local Governments*** (Washington, DC: The Brookings Institution, **1986),** p. **117.**

[26] **See** also Philip J. Grossman, "Fiscal Competition among States in Australia: The Demise of Death Duties," ***Publius: The Journal of Federalism*** **20** (Fall **1990): 145-159.**

[27] Shannon, "Federalism's Invisible Regulator."

[28] William A. Fischel, "Is Local Government Structure in Large Urbanized Areas Monopolistic or Competitive?" ***National Tax Journal*** **34** (March **1981): 95-104.**

[29] U.S. Department of Commerce, "Concentration Ratios in Manufacturing," ***1982 Census of Manufactures*** (Washington, DC, **1983).** It is not clear that the choice of four firms was anything more than an arbitrary choice. Rankings can vary depending on whether one calculates a four-firm concentration ratio or an eight-firm concentration ratio. I can think of no reason to prefer any particular number when applying this concept to local government structure, however.

[30] Fischel, in describing Urbanized Areas with few local governments **as** monopolistic, is using the term monopoly in a more general sense than its literal meaning of "single seller." Others might prefer to label the government structures in Washington, Baltimore, and Miami **as** oligopolistic.

[31] For a related perspective, see U.S. Advisory Commission on Intergovernmental Relations, ***The Organization of Local Public Economies*** (Washington, DC, **1987).**

[32] See, for example, the review by Robert L. Savage, "Diffusion Research Traditions and the Spread of Policy Innovations in a Federal System," ***Publius: The Journal of Federalism*** **15** (Fall **1985): 1-27.**

[33] John E. Chubb, "How Relevant Is Competition to Government Policymaking?" in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press. **1991).**

[34] Ronald C. Fisher, "Intergovernmental Competition: **A** Summary Perspective and Agenda for Research." in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press, **1991).**

Chapter 3

The Federal Government's Role in Setting the Framework for Interjurisdictional Competition

The United States Constitution, federal laws and regulations, grants-in-aid, and tax expenditures aiding state and local governments are part of the framework within which state and local governments compete. Federal policies can affect the "rules of the game" for interjurisdictional competition or change the distribution of resources among governments and thus affect their relative abilities to compete with each other. Federal policies also can modify the incentives for state and local governments to engage in rivalrous behavior or affect the degree of implicit competition that arises from the free movement of products, people, and capital among jurisdictions in the face of differing state and local government policies.

The independent authority of the states and the fact that local governments are legal creatures of the states make state actions an important part of the framework within which local governments compete. State constitutions, laws, regulations, and aid to local governments all help shape the nature and degree of interlocal competition. Due to limitations of research and the diversity among the 50 states, however, the state role in creating a fmmework for competition among local governments will not be addressed specifically in this chapter.

The United States Constitution

The United States Constitution not only provides the basic framework for our federal system of government but also sets the stage for relations among states, and to a lesser degree among local governments.

The key provision affecting the relative political power of the states is the first article of the Constitution, which provides the manner in which the states are represented in the Congress. Each state is represented in the House of Representatives according to its population, but all states are accorded equal representation in the Senate. This provision represents the resolution of an important controversy that arose during the Constitutional Convention. The larger states had argued for representation on the basis of population, while the smaller states argued for equal representation for each state.[1]

The Constitution also places restraints on the competitive tendencies of states in order to create a free national market. Specifically, the Constitution prohibits states from taxing imports or exports without the consent of the Congress. More generally, the commerce clause, which gives the federal government the power to "regulate Commerce among the several States," has been broadly interpreted as limiting the states' power to interfere with interstate commerce. The Constitution also provides for a check on collusion or cooperation among the states by prohibiting one state from entering into an agreement or compact with another state without obtaining the consent of the Congress.

At the same time, some constitutional provisions facilitate or encourage competition. The full faith and credit and the privileges and immunities clauses, for example, guarantee interjurisdictional mobility, which undergirds competition. These clauses also have the effect of restraining unfair competition. The provision for admitting new states to the Union serves to increase the number of jurisdictional competitors, while apportionment of the U.S. House of Representatives according to population serves to reward states that attract residents.[2]

The Supreme Court

Because of the American system of judicial review, court cases interpreting the Constitution have been extremely important in creating the framework for interjurisdictional competition. The evolving interpretations of the commerce clause have generated important judicial restraints on interjurisdictional tax competition.

In the early years, the commerce clause was interpreted as prohibiting nearly all state taxation of interstate commerce; consequently, in drafting state laws, distinctions had to be made between goods that were and were not involved in interstate commerce.[3] This strict interpretation was relaxed over time, and in 1977, the U.S. Supreme Court set forth a new interpretation of the commerce clause. According to the Court in Complete Auto Transit, *Inc.* v. *Brady*, state taxation of interstate commerce must pass four tests:

1) A state may tax only activities with a substantial nexus (business connection) within its state.
2) Only fairly apportioned taxes may be imposed. (This test applies in the case of corporate income taxes, which are subject to apportionment, but not in the case of sales taxes, which are not subject to apportionment.)
3) The tax must bear a fair relation to the services provided by the taxing state.
4) The tax must not discriminate against interstate commerce?

Discussion of specific cases below will help illustrate the application of three of these tests.

Nexus

The requirement that a state may tax only activities with substantial nexus has been subject to changing, sometimes seemingly inconsistent, interpretations by the courts in recent years. Much of this controversy has involved the application of the use taxes that serve as companions to state sales taxes. A use tax, levied by the state of residence, applies to purchases made in another state, and is levied at the same rate as the sales tax on purchases in the home state. States generally are able to collect use taxes only when they can require out-of-state businesses to collect them. This collection requirement may be imposed only when the out-of-state business has substantial nexus within the state.

Two **U.S.** Supreme Court cases that illustrate some of the fine distinctions that have been made in determining whether a business has substantial nexus in a state are Miller Brothers Co. v. *Maryland* and *Scripto, Inc.* v. *Carson*.[5] In Miller Brothers, the state of Maryland attempted to require Miller Brothers, a Delaware retailer, to collect use taxes from Maryland residents who purchased items from Miller Brothers' Delaware store. Miller Brothers delivered items to Maryland residents using its own trucks or common carrier, but the company had no outlet or agents in Maryland, nor did it advertise directly in Maryland. The Court ruled that Miller Brothers could not be required to collect use taxes from Maryland residents. In his summary, Justice Robert H. Jackson argued that there must be "some definite link, some minimum connection, between a state and the person, property or transaction it seeks to tax."

Scripto, Inc. v. *Carson* involved a similar case in which Florida was attempting to require a Georgia merchandising corporation to collect use taxes on purchases made by Florida residents. The Georgia corporation had no office, property, or agents in Florida. The corporation did employ independent sales contractors who traveled to Florida to obtain orders, which were then sent back to Georgia to be filled. In this case, the Court found that the business presence in Florida was substantial enough to make the Georgia firm liable to collect use taxes.

The most important current controversy in the use tax area involves whether certain mail-order firms have sufficient nexus to be subject to the use tax collection requirement. Firms that operate a retail sales outlet in many states, such as Sears or Montgomery Ward, are required to collect use taxes on all sales made to states in which they operate sales outlets. However, firms such as L.L. Bean, which do not operate retail sales outlets outside of their headquarters state, cannot be required to collect use taxes on catalog sales in other states. According to ACIR estimates, state and local governments would have collected nearly $2.5 billion in 1988 (ranging from less than $3.0 million in Wyoming to well over $300 million in California) if use taxes had been collected on taxable commodities sold through mail-order firms.[6] The controlling Supreme Court case is National *Bellas Hess, Inc.* v. *Illinois* Department of *Revenue*, which held that a firm cannot be required to collect use taxes in a state in which its only contact is through the U.S. mail or common carrier.[7]

Fair Apportionment

State income taxation of interstate businesses raises the problem of how to divide the tax base among the various states. A corporation may operate in more than one state and sell its products to a number of states. The question is: how should the corporation's income be divided among the states in which it has taxable presence? The most common practice is to apportion the income tax base according to the proportion of the firm's sales, property, and payroll that are located in each state, with each of the three factors given equal weight in the apportionment formula. If all states were to use such a formula, then summing the portions of an interstate firm's tax base subject to taxation in each state would equal the total tax base of the firm.[8]

In practice, the Supreme Court has allowed the states considerable latitude in setting different apportionment formulas. The case of *Moorman* Manufacturing Co. v. ***Bair*** decided that the single-factor apportionment formula adopted by Iowa, in which only sales were considered, was constitutional? Under that apportionment formula, a manufacturing firm located in Iowa but selling a large proportion of its products to other states would be likely to be taxed on less than its total income tax base. This results from the interaction between Iowa's single-factor formula and the three-factor allocation formulas used by most other states. Iowa would tax this firm relatively lightly because of the small fraction of its sales made to Iowa residents, and other states would tax this firm relatively lightly because the bulk of its property and payroll is located in Iowa.

Conversely, a manufacturing firm located outside Iowa but selling a large proportion of its products to Iowa residents would likely be taxed on greater than 100 percent of its income tax base. Iowa would tax this firm relatively heavily because of the high fraction of its sales to Iowa residents, as would other states because of the high proportion of property and payroll located outside of Iowa. Justice Lewis Powell, who dissented from the majority opinion of the Court in *Moorman*, argued that "Iowa's use of a single-factor sales formula to apportion the income of multistate corporations results in the imposition of a tax which discriminates against interstate commerce . . . by providing a direct commercial advantage to local business."

Nondiscrimination against Interstate Commerce

The fourth requirement of ***Complete Auto Transit*** is that a tax cannot discriminate against interstate commerce. One example of a state tax practice that has been overruled by this ***Complete Auto Transit*** test is the imposition of a use tax with a larger tax base than its companion sales tax.[10] At least one observer has argued that the Supreme Court has maintained a stricter standard of interpretation in the test of nondiscrimination against interstate commerce than for the other ***Complete Auto Transit*** tests.[11] For example, the Court has not allowed states to adopt taxes that discriminate against interstate commerce even if the tax promotes a legitimate state purpose.

On the other hand, the Supreme Court has allowed the states to use a wide variety of tax incentives that may have the effect of luring businesses from other states. From an economic point of view, it is difficult to distinguish between a discriminatory tax imposed on firms headquartered out of state and a tax holiday offered to firms headquartered in the state. Both appear to have the same purpose and, if interstate competition for mobile businesses has a zero-sum effect, may have the same outcome.

Although we have focused on the commerce clause as probably the most important provision of the Constitution affecting interstate tax competition, interpretations of certain other constitutional provisions also have formed an important part of the framework within which interjurisdictional tax competition takes place. For example, the privileges and immunities clause of the Fourteenth Amendment has been used to invalidate a Nevada tax on all individuals leaving the state by public transportation.[12] Furthermore, the due process clause of the Fourteenth Amendment has been interpreted as prohibiting states from imposing death taxes on property held by their citizens in other states.[13]

Federal Laws and Regulations

Federal laws and regulations add further refinement to the framework within which state and local governments compete. As in the last section, this examination can touch on only a small fraction of the ways in which federal laws and regulations affect interjurisdictional competition. Two examples will be discussed. Next, the effect on interjurisdictional competition of federal mandates on state and local governments will be examined briefly.

The interaction between a federal law and various court cases explains an interesting anomaly in the federal framework for interjurisdictional competition. Despite the general prohibition of state discrimination against interstate commerce, out-of-state insurance companies have been discriminated against in two ways relative to insurance companies incorporated within a state. First, states were able to impose a higher rate of gross premiums tax on out-of-state companies than on in-state companies. Second, states have been able to impose retaliatory taxes on out-of-state companies.

The basic mechanism of retaliatory taxation is as follows. Company B, domiciled in State B but doing business in State A, must pay State A the greater of

1) The total taxes applicable to Company B under the gross premiums and other non-retaliatory taxes of State **A**; or
2) The total taxes applicable under the laws of State **B** to an otherwise identical company domiciled in State **A** and doing business in State **B**.

If State **B** taxes out-of-state companies at a lower rate than does State **A**, then Company B will pay no retaliatory taxes. If State B taxes out-of-state companies at a higher rate than does State **A**, then the excess of (2) over (1) is defined **as** the retaliatory tax liability that Company B owes to State A.

The reason why states have been able to discriminate against interstate commerce in insurance is that, for a number of years, the courts held that insurance was not a business involved in interstate commerce, so that the Constitution's commerce clause did not apply. When the courts overruled this interpretation, before state taxation of insurance was affected, the Congress passed the **1945** ***McCarran-Ferguson Act***. This act gives states the right to regulate the insurance business, and it has enabled them to maintain their discriminatory systems for taxing insurance companies.

Recently, insurance companies used the equal protection clause to challenge the practice of levying higher state tax rates on out-of-state companies than on in-state companies. In ***Metropolitan Life Insurance Co.*** v. ***Ward***, the **U.S.** Supreme Court rejected Alabama's differentially high premiums tax on out-of-state insurance companies.[14] Subsequently, some states have adopted equal tax rates for out-of-state and in-state companies, and the matter is being litigated in other states." Nevertheless, the system of retaliatory insurance taxes was upheld in a recent Supreme Court case.[16]

A second example of the way in which federal legislation can affect interjurisdictional competition involves state excise taxes on cigarettes. Ronald Fisher describes how interstate competition has tended to limit the interstate diversity in cigarette excise taxation." Because cigarettes are easy to transport, individuals can avoid high cigarette taxes in their state of residence by traveling to neighboring states to make their purchases, or by obtaining untaxed cigarettes from military bases or Indian reservations. Of particular concern has been the incentive for interstate differentials in cigarette taxation to lead to organized smuggling operations.

In response to state lobbying and an ACIR study,[18] in 1978, the Congress passed the ***Contraband Cigarette Act.*** This law makes it a federal crime to be involved in transactions of large amounts of cigarettes (more than 3,000 packs) unless state taxes are paid. As Fisher describes:

> This law was then vigorously enforced by the Bureau of Alcohol, Tobacco, and Firearms, a branch of the U.S. Treasury. By all accounts, this federal intervention, coupled with expanded state enforcement activity, greatly curtailed interstate cigarette sales to avoid state taxes. . . . In essence, the differences in state excise taxes on cigarettes were able to be maintained, and even increased, largely because of the assistance of the federal government in preventing evasion of those state tax laws.

Federal Mandates

Probably the most visible (and controversial) federal laws and regulations affecting state and local governments in recent years have been federal mandates. According to ACIR, these take several forms:

1) Direct orders (e.g., the wastewater treatment standards set by the ***Clean Water Act).***
2) Crosscutting requirements, which are requirements generally attached to all federally funded programs (e.g., the ***Davis-Bacon Act,*** which sets minimum wage levels on construction projects funded with federal assistance.)
3) Crossover sanctions, which threaten the reduction of one type of federal aid if requirements under a second program are not satisfied (e.g., the threat to withhold highway construction funds if states did not comply with billboard control standards set by the **1965 *Highway Beautification Act).***
4) Partial preemptions, which establish federal standards, but which leave discretion to the states if they adopt a minimum state standard (e.g., the implementation approach for the drinking water quality standards set by the ***Safe Drinking Water Act Amendments*** of 1986.)[19]

There are at least two ways in which federal mandates might affect interjurisdictional tax and policy competition. Given that mandates are often unfunded or underfunded, the amount of the financial burden imposed on state and local governments, as well as the distribution of that burden, is a concern. The relevant question is whether the fiscal impact of unfunded or underfunded federal mandates might weaken the ability of less fiscally able state and local governments to compete with other jurisdictions. The second concern is whether federal mandates might affect interjurisdictional competition by limiting the diverse policy choices made by state and local governments in their efforts to compete.

The evidence is limited regarding the extent and pattern of the fiscal impact of federal mandates on state and local governments. One of the few studies of the fiscal impact of federal mandates, now ten years old, estimated the impact of six unfunded federal mandates (certain wastewater treatment requirements, unemployment compensation requirements for state and local employees, various bilingual education requirements, the ***Education of All Handicapped Children Act,*** transit accessibility requirements, and minimum wage requirements) on seven local governments (Burlington, Vermont; Alexandria, Virginia; Cincinnati, Ohio; Dallas, Texas; Seattle, Washington; Newark, New Jersey; and Fairfax, Virginia).[20] The study found that the mandates imposed substantial costs on local governments—at that time $25 per capita, or roughly equal to the per capita revenue received under the now-defunct General Revenue Sharing program. The authors also found that the fiscal impacts imposed a disproportionately heavy burden on the poorer municipalities.

The evidence is also speculative regarding whether federal mandates limit interjurisdictional competition by placing limits on important policy dimensions along which state and local governments compete. In some cases, federal mandates appear to limit interjurisdictional competition. For example, the minimum-wage requirements imposed by the ***Dais-Bacon Act*** may limit the extent to which governments receiving federal funds can reduce public expenditures, and thus tax burdens, by reducing wage costs. However, a number of mandates affect dimensions of state and local policy that appear less than central to a government's competitive position. For example, national limits on the proliferation of billboards are unlikely to affect the major ways in which state and local governments attempt to compete. In general, federal mandates on state and local governments are not as constraining as some of the state mandates that have been imposed on local governments, such as the caps that six states have imposed on total general revenue a jurisdiction may raise.[21]

Grants-in-Aid

The federal government also can affect competition among state and local governments through its direct and indirect aid programs. Direct aid includes the $115.3 billion in general-purpose, broad-based, and categorical grants provided by the federal government in FY 1988 (see Table 3). Indirect aid refers to the federal tax expenditures that aid state and local governments.

Grants-in-aid can affect interjurisdictional competition by redistributing resources among state and local governments. If grants accomplish a significant amount of redistribution from rich to poor jurisdictions, this may enable the less fiscally able jurisdictions to compete on a more equal basis with other state and local governments. Albert Breton has argued that such distribution may contribute to the stability of interjurisdictional competition.[22] The scenario he has in mind is an urban fiscal crisis in which high central-city tax rates cause high-income individuals to flee to the suburbs, which then requires the city to raise tax rates, which induces more outmigration, and so on. By providing federal aid to central cities, the hope is to slow down or dampen this process.

Table 3 describes the distribution of federal grants by region for 1978 and 1988. In 1988, the least favored region (Arkansas, Louisiana, Oklahoma, New Mexico, and Texas) received 18 percent less grant funding per capita than the U.S. average, while the most favored region

Table 3
Distribution of Grants by Region, 1988 and 1978
(in billions of dollars)

Region	1988 Total Grants	Dollars Per Capita as Percent of U.S. Average 1988	1978
1. Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island	$7.1	118%	120%
2. New York, New Jersey, Puerto Rim, Virgin Islands	18.8	140	128
3. Virginia, Pennsylvania, Delaware, Maryland, West Virginia, District of Columbia	13.1	109	105
4. Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Florida	17.5	86	90
5. Illinois, Indiana, Michigan, Ohio, Wisconsin, Minnesota	20.4	95	89
6. Arkansas, Louisiana, Oklahoma, New Mexico, Texas	10.8	82	86
7. Iowa, Kansas, Missouri, Nebraska	4.8	87	79
8. Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming	4.0	112	107
9. Arizona, California, Nevada, Hawaii, other territories	14.2	90	105
10. Idaho, Oregon, Washington, Alaska	4.7	114	119
United States	$115.3	—	—

Source: U.S. Office of Management and Budget, ***Special Analyses, Budget of the United States Government, Fiscal Ear 1990,*** Table H-6. (Preliminary estimates.)

(New York, New Jersey, Puerto Rico, and the Virgin Islands) received 40 percent more than the U.S. average. A comparison with 1978 figures indicates that the range between the most favored and least favored regions has in*creased* over the last decade. Furthermore, the Midwest has been gaining grant funds per capita relative to the rest of the United States, while the South's ranking has declined.

More important than the raw figures showing federal grant funds per capita is the record of grant funding relative to reasonable measures of fiscal capacity or fiscal need. A U.S. Department of the Treasury study used 1983 federal grant disbursements by state and a number of measures of fiscal capacity to determine the degree to which federal grants redistribute funds to the more needy states.[23] The study found that there was no statistically significant relationship between a state's total per capita federal aid and its fiscal capacity, nor was there a statistically significant correlation between per capita amounts of most federal aid programs (considered individually) and state fiscal capacity. (To be redistributive, there would have to be a significant negative relationship between per capita grants and fiscal capacity. In other words, states with low levels of fiscal capacity would receive relatively high per capita grants while states with high levels of fiscal capacity would receive relatively low per capita grants.) The grant programs that did tend to reduce fiscal disparities among the states were Child Nutrition Programs, the Special Supplemental Food Program, Rehabilitation Services and Handicapped Research, Appalachian Region Development Programs, and Food Stamps. Grants that tended to exacerbate fiscal disparities among the states were Compensatory Education Programs for the Disadvantaged, School Assistance in Federally Affected Areas, and Lower Income Housing Assistance.

A more recent study by Robert Tannenwald comes to a similar conclusion.[24] Using 1985 federal grant data, and a measure of "fiscal comfort" constructed by taking the ratio of a measure of fiscal capacity to a measure of fiscal need, Tannenwald finds no statistically significant correlation between per capita grant money and fiscal comfort. Based on the Treasury and Bnnenwald studies, total federal grants appear to have no significant effects on the relative resource endowments of fiscally needy and fiscally well-off states.

The evidence regarding the effect of federal grants on the relative competitive positions of local governments is scant. One of the methodological problems is the fact that a large proportion of federal aid to states is passed through to local governments, but Census data on federal aid to local governments does not include this indirect form of federal aid. Another problem is the lack of a reliable measure of local government fiscal capacity.

A U.S. Treasury study of direct federal aid to local governments in ten states, using per capita income as a measure of fiscal capacity, produced evidence that the aid tends to reduce fiscal disparities.[25] For all states, per capita aid to all local governments by county was negatively correlated with per capita income, and for six of the states this relationship was statistically significant.

Tax Expenditures

Tax expenditures are the final means by which federal actions create a framework for competition among governments in the United States. The two major tax expenditures aiding state and local governments are federal income tax deductibility of state and local income and property taxes, and the exclusion from federal income taxation of interest on state and local debt. Bble 4 sets out estimates of the outlay-equivalents of each of these forms of indirect aid. The outlay-equivalent estimates signify that once interactions among the tax expenditures are taken into account, the federal support through these two tax expenditures in 1988 was approximately equivalent to a direct expenditure program of $42.5 billion.

Tax Deductibility

Federal income tax deductibility of state and local income and property taxes provides a direct benefit to state and local taxpayers who itemize deductions on their income tax returns by reducing their federal income tax liabilities. Because tax deductibility has indirect beneficial effects on the revenue-raising power of state and local governments as well, it is generally viewed as a form of indirect aid to state and local governments.

Tax deductibility is likely to have three important effects on interjurisdictional competition. First, to the extent to which this indirect form of aid to state and local governments redistributes resources, it can affect the ability of some jurisdictions to compete with others. Second, tax deductibility is likely to make it easier for state or local governments to rely on relatively progressive taxes. This results from the fact that the more progressive the tax, the greater the federal tax savings (federal offset) from tax deductibility will be. The more progressive the taxes, the greater the proportion of the tax burden on high-income individuals who are likely to itemize deductions on their federal income tax returns and be subject to high federal marginal tax rates.

Third, mobile citizens will find high-spending and taxing jurisdictions relatively more attractive because of federal tax deductibility. Table 5 illustrates this point with respect to a hypothetical family with a $75,000 income deciding where to live in the Washington, DC, area. The first column presents the total state and local income, sales, property, and auto taxes that the family would have been liable for in 1988. The second column takes the offset from federal deductibility of state and local income and property taxes into account. The figures in the first column indicate that the family could apparently save $1,716 in annual taxes by locating in Arlington County, Virginia ($7,010), rather than in Washington, DC ($8,726). However, once federal tax deductibility is taken into account, the real tax advantage of moving to Arlington County is only $990 ($6,586/ $5,596). As claimed, this example illustrates the manner in which tax deductibility makes locating in high-taxing and spending jurisdictions relatively more attractive.

Tax-Exemption for Industrial Development Bonds

Table 4 gives an indication of the wide range of state and local debt that can be issued on a tax-exempt basis. Because the interest is exempt from federal income taxation, state and local governments are able to issue debt at lower interest rates than if the interest was subject to federal income taxes.

Certain categories of state and local debt (often referred to as private purpose debt) are issued for economic development purposes, not to finance construction of government infrastructure or provision of government services. Specifically, state and local governments frequently issue debt at below market interest rates in order to provide low-cost financing to businesses located within their jurisdictions. The small-issue industrial development bond (IDB) program may be the most well known of these tax-exempt bond financed economic development devices. The first tax-exempt industrial development bond was issued in Mississippi in 1936. Since then, annual issues grew from $0.1 billion in 1970 to a peak of $18.4 billion in 1985.

Table 4

Tax Expenditures Aiding State and Local Governments

(outlay equivalents, in millions of dollars)

Description	FY 1990
Deductibility of:	
Property taxes on owner-occupied homes	$11,240
Nonbusiness state and local taxes other than on owner-occupied homes	20,290
Exclusion of interest on:	
Public purpose state and local debt	13,520
IDBs for certain energy facilities	405
IDBs for pollution control and sewage disposal facilities	1,830
Small-issue IDBs	2,840
Owner-occupied mortgage revenue bonds	2,045
State and local debt for rental housing	1,420
Mass commuting vehicle IDBs	40
IDBs for airports, docks, and sports and convention facilities	860
State and local student loan bonds	275
State and local debt for private nonprofit educational facilities	305
State and local debt for private nonprofit health facilities	2,725
State and local debt for veterans housing	295
Total (after interactions)'	22,575

'The estimate of total tax expenditures reflects interactive effects among the individual items. Therefore the individual items cannot be added to obtain a total.

Source: U.S. Office of Management and Budget, *Budget* of the ***United States Government, Fiscal Year 1991,*** Table C-1, p. A-73.

Table 5

Comparing State and Local Tax Burdens in the Washington, DC, Area*

Jurisdiction	Total State and Local Taxes	Total State and Local Taxes Net of Federal Offset
District of Columbia	$8,726	$6,586
Montgomery County, MD	7,901	5,927
Pr. George's County, MD	7,147	5,384
Alexandria, VA	8,585	6,813
Arlington County, VA	7,010	5,596
Fairfax County, VA	7,833	6,239
Range	$1,716	$1,429

*Note: These comparisons apply to a hypothetical family of four with $75,000 in income in 1988. The taxes taken into account are income, sales and use. real estate, and automobile. The assumed federal marginal tax rate is .28.

Source: Author's calculations based on District *of Columbia Tax Facts,* Fiscal ***Year 1988.*** Government of the District of Columbia, September 1989, p. 56.

Because, in effect, the IDB subsidy to economic development is financed by the federal government and imposes only indirect **costs** on state and local governments, there is **a** great incentive favoring state and local adoption. One may reasonably conclude that federal tax exemption of industrial development bonds encourages state and local governments to engage in active rivalry for economic development.

Conclusion

This chapter has provided a brief overview of the various ways that the federal government sets the framework within which state and local governments compete. Some federal policies set the "rules of the game" for interjurisdictional competition. For example, the controlling interpretation of the commerce clause of the **U.S.** Constitution prohibits a state from taxing interstate businesses that **do** not have **a** substantial business connection (nexus) within its boundaries. Other federal policies, most importantly grants-in-aid, can change the distribution of revenues among governments and thus affect their relative abilities to compete with each other. The federal law allowing state and local governments to issue tax-exempt industrial development bonds to aid business firms affects interjurisdictional competition by providing **a** federally financed business subsidy that can be used in the competition for economic development. Finally, federal policies can affect the degree of implicit interjurisdictional competition that arises from the free movement of products, people, and capital in the face of differing state and local government policies. Without federal deductibility of state and local taxes, high-taxing and spending jurisdictions would face more implicit competition from their lower taxing and spending neighbors. Similarly, without the federally enforced ***Contraband Cigarette Act,*** states levying high rates of cigarette taxation would be under greater pressure to lower their tax rates.

The next two chapters will examine in more detail four reasonably distinct types of interjurisdictional competition: tax competition, service competition, regulatory competition, and competition for economic development.

Notes

[1] In contrast, the Canadian Senate does not provide equal representation for each of the provinces. Albert Breton argues that the Canadian system of provincial representation aggravates "competitive inequality" among the provincial governments and that the equal state representation in the United States Senate provides a superior framework for competition among governments. "Supplementary Statement," in ***Royal Commission on the Economic Union and Development Prospects for Canada, Volume 3*** (Ottawa, 1985), p. 511.

[2] For further discussion, see John Kincaid, "The Competitive Challenge to Cooperative Federalism," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Govemments: Efficiency and Equity in American Federalism*** (Washington, D C The Urban Institute Press, 1991).

[3] Philip M. Tatarowicz, "Controversial State Tax Issues under the Commerce Clause," Mimeo, Ernst & Whinney, Washington, DC, 1987. The author's references for this point are Brown v. Maryland, 25 **U.S.** 419 (1827) and Coe v. Errol, 116 U.S. 517 (1886).

[4] Complete Auto Transit, Inc. v. Brady 430 U.S. 274 (1977).

[5] Miller Brothers Co. v. Maryland 347 U.S. 340,343 (1954) and Scripto, Inc. v. Carson 362 **U.S.** 207,212 (1960).

[6] U.S. Advisory Commission on Intergovernmental Relations, ***Estimates of Revenue Potential from State Taxation of Out-of-State Mail Order Sales*** (Washington, DC, 1987).

[7] National Bellas Hess, Inc. v. Illinois Department of Revenue 386 **U.S.** 753 (1967).

[8] This discussion follows Ronald C. Fisher, ***State and Local Public Finance*** (Glenview, Illinois: Scott, Foresman and Company, 1988), pp. 221-222. This statement and the discussion that follows make the simplifying assumption that definitions of the corporate income tax base do not vary among the states.

[9] Moorman Manufacturing Co. v. Bair 437 **U.S.** 267 (1978).

[10] Halliburton Oil Well Cementing Co. v. Reily 373 **U.S.** 64 (1963).

[11] Tatarowicz, "Controversial State Tax Issues."

[12] Crandall v. Nevada, 6 Wall. 35 (1868). See also Toomer v. Witsell, 334 U.S. 385 (1948).

[13] These examples were discussed in "State and Local Tax Law," Harvard Law School, International Tax Program, World Tax Series, ***Taxation in the United States,*** pp. **100-104** (1963).

[14] Metropolitan Life Insurance Co. v. Ward 105 S.Ct. 1676 (1985).

[15] Fisher, pp. 230-231.

[16] Western & Southern Life Insurance Co. v. State Board **of** Equalization 451 **U.S.** 651 (1981).

[17] Fisher, pp. 182-183.

[18] U.S. Advisory Commission on Intergovernmental Relations, ***Cigarette Bootlegging: A State and Federal Responsibility*** (Washington, DC, 1977).

[19] _______, ***Regulatory Federalism: Policy, Process, Impact and Reform*** (Washington, DC, 1984), p. 8.

[20] Thomas Muller and Michael Fix, "The Impact of Selected Federal Actions on Municipal Outlays," in ***Government Regulations: Achieving Social and Economic Balance,*** Volume 5 of ***Special Study on Economic Changes*** (Washington, DC: U.S. Congress, Joint Economic Committee 1980). See also Michael **Fix's** summary of this study in "Observations on Mandating," in Michael **Fix** and Daphne A. Kenyon, eds., ***Coping with Mandates: What Are the Alternatives?*** (Washington, DC: The Urban Institute Press, 1990).

[21] See Daphne A. Kenyon, "Reforming State Policies that Affect Local Taxing and Borrowing," in E. Blaine Liner, ed., ***A Decade of Devolution: Perspectives on State Local Relations*** (Washington, D C The Urban Institute Press, 1989).

[22] Albert Breton, "The Existence and Stability of Intergovernmental Competition," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press, 1991).

[23] U.S. Department of the Treasury, Office of State and Local **Finance**, ***Federal-Stale-Local Fiscal Relations: Report to the President and the Congress*** (Washington, DC, 1985), pp. 197-202. The eight measures of fiscal capacity were per capita income, two versions of the representative tax system (RTS, ACIR's fiscal capacity measure), the representative revenue system (RRS), gross state product (GSP). total taxable resources (TTR), RTS adjusted for needs, and TTR adjusted for needs.

[24] Robert Tannenwald, "The Changing Level and Mix of Federal Aid to State and Local Governments," ***New England Economic Review*** (May/June 1989): 41-55.

[25] Treasury, ***Federal-State-Local Fiscal Relations,*** pp. 202-203.

Chapter 4

Arenas in Which Governments Compete: Tax and Service

State and local governments use their varying tax, service, regulatory, and economic development policies to compete for individuals, businesses, and tax base, whether such competition is intentional or unintentional. In this chapter, tax and service competition will be addressed. State and local competition through regulatory and economic development policies will be analyzed in Chapter 5.

Although we distinguish four different arenas within which state and local governments compete, these arenas are closely related. Because taxes pay for services, tax levels will be highly correlated with service levels. Furthermore, in competing for business firms, states find that although firms are concerned about the level of taxes they will pay, they also are concerned about key regulations, such as right-to-work laws, and certain types of services, such as funding for education and public works infrastructure. Similarly, mobile individuals will try to choose the government with the "package" of government services and taxes they most prefer.

In the past, interstate tax competition was the primary focus of interest for those concerned with competition among governments. This emphasis on the tax side of the equation at the expense of the service side led to much mischief in terms of policy advice. Those who warned against the evils of "unbridled interstate tax competition" sometimes seemed to have forgotten that taxes pay for services. Because business firms and individuals have strong interests in government services, there is a limit on how low taxes can be driven by competition among governments. Most people are now aware of this point.

Because some of the literature examines the tax or service side only, and because competition on a tax-by-tax basis or competition to export taxes to other jurisdictions does not directly involve the service side of the equation, this chapter splits the topic of government fiscal competition into the somewhat artificial components of tax competition and service competition.

Some of the questions addressed in this chapter include:

What forms does tax competition take? What are some important forms of service competition?

How much do the levels of state and local taxes on businesses and individuals vary across the U.S? How much do service levels vary?

What is the current evidence regarding the effects of taxes on the distribution of business activity? What are the effects of differing tax burdens on individuals? Of differing service levels?

Does interjurisdictional competition result in depressed service levels?

This chapter helps broaden the concept of interjurisdictional competition. It describes different forms of tax competition and surveys some of the recent studies of service competition. Recent empirical evidence regarding the effects of differential tax burdens on the location of business activity is reviewed. Until recently, the consensus was that state and local taxes did not matter much in business location decisions. Some of the recent studies reviewed here challenge that consensus. One of the chapter's more important conclusions is that interjurisdictional competition does not necessarily depress state and local expenditures; in some cases, it can also create pressure to increase spending and thereby to raise taxes.

Tax Competition

Forms of Tax Competition

There appear to be at least four separate types of tax competition:

1) *Competition **regarding the overall level of taxation.*** Since jurisdictions compete most actively for business firms and for high-income individuals, the level of taxation of each of these groups is important.

2) ***Competition via special tax exemptions, tax abatements, and the like.*** This is a major avenue of competition for business firms. Because it falls most appropriately into the category of competition for economic development, we will examine this type of tax competition in the following chapter.

3) ***Competition on a tax-by-tax basis.*** Even if the overall levels of taxation of two competing states are similar, if their tax structures are very different, they may compete for some portions of their tax base.

4) ***Competition in the attempt to export** taxes to **other states.*** The potential for tax exporting depends on the structure of the state's economy, patterns of tax incidence, the federal tax structure, and federal laws regarding discrimination against out-of-state taxpayers.

The next few sections of this chapter will review the empirical evidence regarding the first type of tax competition—competition regarding the overall tax burden on businesses and individuals.

Level of Business Taxation

One of the most heated arenas of interjurisdictional tax competition is for business firm location. Although the level of one particular tax, such as the corporate income tax, can be a signal regarding the nature of a state's business climate, most chief executive officers are likely to decide on the tax advantages of a particular location by examining the level of ***total*** taxes that would be paid by their business.

There appears to be neither a great deal of clear information regarding how to measure the level of business taxes nor a solid consensus on the impact they have on firm location. In our review, we begin with the most basic empirical studies and then move to more complex studies. The question of the appropriate measure of the level of business taxes naturally precedes the effort to determine the extent to which tax differentials make a difference in the location of business activity.

The first murky problem is that of tax incidence. It is axiomatic in public finance that only people pay taxes. The puzzle is which people bear the burden of business taxes—consumers, wage earners, or land and/or capital owners? Resolution of this problem is important not only in assessing the final distributional impact of taxes with an initial impact on businesses but in measuring the degree of a jurisdiction's attractiveness to business. For example, depending on whether a firm sells its product in a local or national market, it will have a very different capability for passing tax increases on to consumers. Although a firm is likely to resist any type of tax increase, the long-run impact will be very different depending on whether the firm, for example, can pass a substantial portion of the tax on to consumers or will bear the full burden itself.

Because of the difficulty of resolving the tax incidence question, analysts measuring the level of state or local taxes on business have narrowed the question to an assessment of the level of taxes with an initial impact on business. ACIR did such a study for the 50 states and the District of Columbia.[1] The business taxes included in the aggregate measure of taxes with an initial impact on business were corporate net-income taxes, real and personal property taxes on business, the business portion of general sales and gross receipts taxes, insurance taxes, severance taxes, public utility gross receipts taxes, occupation and business license taxes, and various miscellaneous business taxes.

According to the ACIR report, the proportion of total state and local taxes with an initial impact on business in 1977 averaged 30.9 percent for the entire United States and ranged from 26.8 percent for the Plains states to 39.8 percent for the Southwest.[2] Andrew Reschovsky updated these estimates to 1980 and found that the percentage of total taxes with an initial impact on business had increased slightly.[3]

The methodology as well as the estimates of these studies are now outdated. For example, Reschovsky assumes that the business share of both property taxes and general sales and gross receipts taxes were constant between 1977 and 1980.[4] As Steven Gold points out, this casts doubt on Reschovsky's finding that the business share of state and local taxes increased slightly from 1977 to 1980.[5] Because the ACIR estimate of the proportion of the sales tax borne by business is based on findings in an article published in 1969, the sales tax estimates especially need revision.[6]

Another problem with these estimates is that the level of taxation as well as the proportion of a state's taxes borne by business are important. In Reschovsky's 1980 estimates, Texas imposed **46.4** percent of its total state and local taxes on business, while Massachusetts imposed only **21** percent of its total taxes on business.[7] However, because Massachusetts is a relatively high-tax state and Texas is a low-tax state, these figures give a misleading picture of the ***level*** of taxes borne by business in each state.

As Gold points out, the largest state and local tax imposed on business is the property tax. The variations in local tax rates, assessment practices, and use of selective tax abatements make it difficult to measure the business property tax burden on a statewide basis. For this reason, among others, a more "micro" analysis of state and local tax burdens on business appears useful.

One such micro study is an examination of Oklahoma's tax climate by Price Waterhouse.[8] Specific urban and rural sites were chosen in Oklahoma and in the neighboring states most likely to be competitors (Texas, Louisiana, Arkansas, Mississippi, Missouri, New Mexico, Colorado, and Kansas). Tax burdens were estimated for each site for six different manufacturing industries. The taxes included were property, general sales, franchise,

Table 6
Alternative Measures **of** Business **Tax** Burdens

Jurisdiction	Property Tax Rate (mills)	Property Tax As Percent of Average	T x Rate	T x As Percent of Average	Six-Industry Average Tax Effective Rates	Six-Industry Average Tax As Percent of Average
Arkansas (Little Rock)	**79.75**	**98**	**6.00**	**113**	**22.78**	**101**
Colorado (Englewood)	**81.82**	**101**	**5.00**	**94**	**19.86**	**88**
Kansas (Kansas City)	**153.50**	**190**	**6.73**	**126**	**31.46**	**139**
Louisiana (Baton Rouge)	**50.71**	**63**	**8.00**	**150**	**18.31**	**81**
Mississippi (Jackson)	**99.60**	**123**	**5.00**	**94**	**21.53**	**95**
Missouri (St. Louis)	**105.37**	**130**	**5.00**	**94**	**27.87**	**123**
New Mexico (Albuquerque)	**56.36**	**m**	**7.20**	**135**	**19.49**	**86**
Oklahoma (Oklahoma City)	**87.92**	**109**	**5.00**	**94**	**20.80**	**92**
Texas (Plano)	**13.77**	**17**	**0.00**	**0**	**21.29**	**94**
Average	**80.97**		**5.33**		**22.60**	

Note: The six industries included in the calculation of the effective tax rate are food **processing, communications equipment, electronic components, aircraft, instruments, and optical equipment. The effective tax rate incorporates a number of factors, including the property tax assessment ratio, property tax exemptions, sales taxes on business purchases, the franchise tax, corporate income tax apportionment, depreciation tax rules, and unemployment insurance taxes.**

Source: Price **Waterhouse, "An Evaluation of the Oklahoma Business Climate,"** July **10, 1985, pp. 35, 67.**

corporation income, and unemployment insurance. Assessment ratios, property and sales tax exemptions, apportionment of the corporation income and franchise taxes, and treatment of depreciation under the corporation income tax were some of the adjustments included in order to compute the tax burden for each site for a given size expansion of a manufacturing firm.

Table **6,** which presents some of the results of the Price Waterhouse study, also gives an indication of how the micro analysis can change conclusions regarding the level of business taxes. Plano, Texas, is subject to a property tax rate of only **13.77** mills and not subject to corporate income tax. In a study that included only the gross level of property and corporate income taxes, the city would rank far below all of the other competitors in terms of its business tax burden. However, by making the adjustments to property and corporate tax burdens noted above, and by including the burdens of other taxes, Price Waterhouse concludes that the six-industry average effective tax rate in Plano, Texas, actually exceeds that for the sites in Colorado, Louisiana, New Mexico, and Oklahoma. The Texas state franchise tax makes the largest contribution in raising Plano's effective tax rate up into the range of the tax rates for the other states.

Effect of Tax Levels on Business Location, Employment, and Investment

In the competition for business, do different state and local tax burdens have an effect on location? Until recently, the consensus **was** that taxes did not matter much in those decisions. **A** comprehensive review done in 1984 for a New York tax study assessed the literature in this manner:

> In large part, the studies that have been undertaken conclude that state and local taxes have little, if any, effect on industrial location decisions. **This** conclusion emerges both from studies that survey decisionmakers and from those which analyze actual locational decisions (usually, regression studies). Moreover, the most recent studies reaffirm the body of research accumulated on this subject over the last three decades?

There were many reasons why researchers found this result plausible. First, empirical evidence showed that taxes were a small proportion of the total costs faced by business firms. When wage rates and transportation costs exceed tax costs **by** many times, it is conceivable that taxes will not play a significant role in business location decisions.

Second, as noted above, taxes are used to fund expenditures on desired services. To the extent that relatively high taxes are used to fund relatively extensive services, tax levels would not be negatively correlated with levels of business activity.

Furthermore, the federal tax system acts to moderate interjurisdictional tax differentials. At the old top federal corporate tax rate of **46** percent, a $10,000 gross differential in state and local business taxes between two jurisdictions became an effective differential of $5,100 [$10,000-(10,000 x .49)].

Nevertheless, in the several years since the New **York** tax study literature review, the research consensus of the previous three decades has been challenged. James Papke and Leslie Papke, one of the research teams that has found taxes to be an important determinant of the distribution of business activity, state:

In the last several years . . . the results of a number of econometric studies tend to indicate that taxes are a determinant of the geographic distribution of business activity, employment and production facilities. . . . Given all the countervailing evidence, it would be a mistake to generalize from the most recent research efforts, but, on balance, it appears the "revisionist" case is advancing; that is, differential tax burdens do influence investment location decisions.[10]

Michael Wasylenko, a researcher who has conducted an even more recent literature review, as well as a number of his own studies of the effects of fiscal variables on the levels of business activity among the states, is more cautious in his assessment of the conclusions one can draw from existing research. He concludes his 1989 review of 17 recent studies in this way:

Despite much recent empirical work on the subject, the ***cross section*** evidence on the effects of state and local taxes and expenditures on state variations in employment and capital outlays does not come to a firm conclusion. The empirical results depend on the year of the analysis, and in some cases on the particular measure of the tax variable used in the regression.

Other researchers have turned to ***pooled cross section time series*** models. While these models generally yield statistically significant coefficients on the tax and expenditure variables, the coefficients on these variables vary across time periods and also across regions."

Figure 1 presents in summary form the findings of a number of the recent studies of the effects of taxation on the distribution of business activity.[12] The indicators of business activity that the studies seek to explain include the location of new branch plants, capital investment per worker, the level of state personal income, state employment growth, and percentage change in real value added. In only one study are no tax variables found to be significant determinants of the variable to be explained (i.e., there was no strong association between taxes and the variable to be explained).[13] At the other end of the spectrum, the Papke study of the determinants of capital investment per worker provides the firmest evidence that taxes do have a statistically significant and large effect on the interjurisdictional distribution of business activity (i.e., there was a strong association between taxes and the distribution of business activity).

The Papkes' study is notable in that it employs a more precise measure of state and local business tax differentials than those used in previous empirical research.[14] The Papkes' primary tax variable is a measure of the after-tax rate of return on additional business investment, which takes into account local property taxes; state and local sales taxes; federal, state? and local income taxes, and state franchise, gross receipts, and value added taxes. The Papkes argue that aggregate measures of the level of business taxes (such as ACIR's earlier measure of the proportion of total state and local taxes that have an initial impact on business) are not appropriate for modeling business location decisions because they miss a large part of the important variation in business tax levels.

Most of the other studies summarized in Figure 1 indicate that for some types of taxes, years, and industry groups (but by no means all) taxes do seem to have a significant effect on the level and distribution of business activity. The two Wasylenko and McGuire studies are of particular interest. The 1985 Wasylenko and McGuire study found that "effective individual income tax" and "trend in tax effort" variables had significantly negative effects on the rate of state employment growth over the 1973 to 1980 period—that is, higher taxes were associated with a lower rate of employment growth. The 1987 McGuire and Wasylenko study did not replicate these results, but found that virtually all tax variables were statistically insignificant in explaining the state employment growth rate from 1973 to 1977 and from 1977 to 1984; that is, there was no strong association between taxes and state employment growth.

Effect of Tax Levels on Individuals

When policymakers worry about the effects of taxes on location decisions, they are concerned about the potential mobility of high-income citizens as well as of business firms. For that reason, among others, the level of taxes imposed on individuals by state and local governments is of interest. This section will first look at the tax differentials that exist, then explore the studies that have attempted to determine whether these differentials matter.

Providing helpful comparative information on the level of individual taxes appears simpler than attempting to provide the equivalent information for business firms. A major reason is that most economists agree that statutory incidence and effective incidence are the same for the two largest components of state and local taxes with an initial impact on individuals—income taxes and property taxes on owner-occupied homes.[15]

The District of Columbia makes annual estimates of the tax burden imposed on a hypothetical family of four in the largest city in each state.[16] Income, property, sales, and auto taxes are included in the analysis, and computations are done for families with income levels of $25,000, $50,000, $75,000, and $100,000.

In 1988, for families at the $25,000 income level, the U.S. median level of total state and local taxes was $2,078, which amounted to 8.3 percent of family income. The hypothetical family of four with $25,000 income would be subject to the highest state and local tax burden in Milwaukee, Wisconsin ($3,425 or 13.7 percent of income), and the lowest in Anchorage, Alaska ($973 or 3.9 percent of income).

The U.S. median level of total state and local taxes for families at the $100,000 income level was computed to be $8,796, which was equal to 8.8 percent of family income. The hypothetical family of four with $100,000 income would be subject to the highest state and local tax burden in Portland, Oregon ($14,574 or 14.6 percent of income), and the lowest in Anchorage, Alaska ($3,313 or 3.3 percent of income). These figures indicate that the

Figure 1

Literature Review Econometric Studies of the Effects of Tax Differentials

Study	Jurisdiction Level	Variable to be Explained	Tax Variables	Results
Carlton (1983)	SMSA	Location of new branch plants, 1967-71	1) Property tax rate 2) Weighted average of corporation and personal income tax	Tax variables insignificant
Plaut & Pluta (1983)	State	Percentage changes in employment, real value added, and real capital stock, 1967-72 and 1972-77	1) State corporate income taxes, corporation license tax collections, and occupational fees as a percentage of payroll generated by "corporate-like" business 2) Principal components measure of level and progressivity of state personal income tax 3) State sales and gross receipts taxes as a percentage of retail sales 4) Effective property tax rate 5) State and local tax effort	Tax effort is significantly negatively related to the percentage change in employment the coefficient on the property tax variable is positive and significant for all regressions
Newman (1983)	State	State employment growth relative to U.S. employment growth, 1957-73	Change in state's relative corporation income tax rate, lagged 10 years	Tax coefficient is significantly negative for 5 of 13 industry groups and for all regressions pooling industries
Bartik (1985)	State	New branch locations of *Fortune 500* firms, 1972-78	1) Business property tax rate 2) Corporate income tax rate	Corporate income tax rate has a significantly negative effect; property tax variable is insignificant
Helms (1985)	State	Level of state personal income, 1965-78	1) Property tax as a percentage of income 2) Other state and local taxes as a percentage of personal income 3) User fees as a percentage of personal income	Property tax and other state and local tax variables have significantly negative effects
Wasylenko & McGuire (1985)	State	State employment growth rate, 1973-80, by industry	1) Percentage change in overall tax effort, 1967-77 2) Top nominal corporate income tax rate, 1976 3) Nominal personal income tax rate at $50,000 income, 1976 4) Effective average corporate tax rate, 1979 5) Effective average personal income tax rate, 1977 6) Percentage of state and local taxes from sales taxes, 1977	Effective individual income tax effort variables have significantly negative effects for several industry groups
McGuire & Wasylenko (1987)	State	State employment growth rate, 1973-77 and 1977-84, by industry	1) Personal tax rate at $50,000 of taxable income 2) Per capita sales taxes 3) Maximum corporate tax rate 4) Effective property tax rate	Virtually all tax variables are statistically insignificant
Papke (1987)	State	Capital investment per worker	1) After-tax rate of return (incorporation sales. property taxes) 2) Effective tax level imposed on all manufacturing enterprises 3) ACIR's measure of the proportion of state and local taxes with an initial impact on business	After-tax return has a significantly strong positive effect

overall level of **personal** taxation imposed **by** state and local governments varies considerably across the United States.

One of the largest subsets of the public finance literature testing the effects of these tax-burden differentials is the empirical work on the extent of property tax capitalization. In the seminal article, Wallace Oates examines the extent of property tax capitalization in 53 suburban New Jersey communities as a test of the Tiebout hypothesis." Oates hypothesized that if taxes (and spending) did influence location decisions, then, all else being equal, property values would be lower in communities with higher property taxes (and higher in communities with a higher level of spending on public education).

The concept of tax capitalization is based on the mathematical relationship between a present value and a perpetual annuity:

$$V = Y/r$$

where V = the present value

Y = the annual payment and

r = the applicable interest rate.

Thus, at an interest rate of 10 percent, an annual property tax bill of $500 would impose a present value cost of $5,000. Suppose a particular home were subject to an increased property tax bill of $500 but the homeowners received no increase in public services in return for their increased tax bill. If property taxes are fully capitalized, the value of the home would fall by $5,000.

Oates found that both property tax levels and spending on education were partially capitalized into property values. In a more recent article, Howard Bloom, Helen Ladd, and John Yinger review **20** studies **of** property tax capitalization.[18] These studies use various estimation procedures and data from different locations and time periods. The conclusion from this literature review is that "interjurisdictional property tax variations are between halfway and fully capitalized into house values."[19] According to Bloom et al., the major weaknesses of this literature are the difficulties in correcting for simultaneity bias, the bias that results from omitting data on other determinants of house values that are correlated with property taxes, and the difficulty in determining the appropriate interest rate.

Another **type of** study attempts to measure directly the effects of tax (and expenditure) differentials on individual migration. Reschovsky used data on household moves in the Minneapolis-St. Paul area from customer records of the electric power company to do such a study.[20] His findings corroborated the previous capitalization studies. Household moves were found to be significantly negatively related to tax levels, all else equal, and significantly positively related to the total level of community spending and to the level of spending on education adjusted to reflect variations in school quality. (In other words, households were more apt to move to communities with lower taxes, higher spending, and higher school quality, all else equal.)

We now turn to the last two categories of tax competition: competition on a tax-by-tax basis and efforts to shift taxes to residents of other jurisdictions.

Competition on a Tax-by-Tax Basis

It is not possible here to do a comprehensive review of interstate, much less interlocal, tax competition on a tax-by-tax basis. However, two examples will help to indicate the pervasiveness of this form of tax competition.

Although taxation of cigarette and other tobacco products typically accounts for a very small percentage of total state taxes (on average, it made up **1.8** percent of all state taxes in 1988), the past history of organized crime involvement in cigarette smuggling may continue to make state policymakers wary of creating large tax differentials relative to other states.[21] At present, Texas' tax on a package of 20 cigarettes is **41** cents, while North Carolina's tax rate **is** 2 cents. Because an ACIR report on taxation of cigarettes concluded that a 23-cent interstate differential "offers a very attractive profit opportunity for organized smuggling operations," competition between states at the high end of the range and those at the low end of the range on even this minor revenue source may be of concern to some policymakers in states such as Texas.[22]

Similarly, because Pennsylvania exempts all clothing from its general sales tax and Connecticut exempts clothing valued at less than $75, New Jersey legislators may be hesitant to repeal the state's sales tax exemption for clothing, lest its retailers close to state borders lose a substantial volume of sales. This fear is partially substantiated by recent research done by William Fox.[23] He was able to test the determinants of four types of sales in two border areas of Tennessee: the Clarksville-Hopkinsville area in western Tennessee on the Kentucky border and the Tri-Cities area in eastern Tennessee bordering on both North Carolina and Virginia. The sales categories he examined were furniture, apparel, food for at-home consumption, and food for away-from-home consumption. He found that of these categories, furniture sales are most sensitive *to* sales tax differences between Tennessee and its neighboring states, followed by sales of apparel. ***An*** equation that estimates the determinants **of** total taxable sales predicted that a 1 percentage-point increase in Tennessee's sales tax rate would reduce taxable sales in the Clarksville-Hopkinsville area by **3.73** percent and taxable sales in the Tri-Cities area by **.44** percent.

Shifting Taxes Out *of* State

The final type of tax competition we will examine is the attempt by states to shift the burden of taxation to nonresident individuals or to out-of-state owners of corporation~ Sometimes, the intention to export taxes is made explicit. For example, tax analysis done for the state of North Dakota listed "exportability" among the criteria for evaluating proposed tax changes. The report asked, "To what extent can the tax burden be exported, i.e., shifted to nonresident customers or perhaps nonresident owners of North Dakota land or capital?"[25] When state governments attempt to export their taxes to residents **of** other states, they are following a long-standing political tradition that "the best tax is the tax the other guy pays."

Donald Phares studied tax exporting by **U.S.** state and local governments several years ago and estimated the proportion of each type of tax that was likely to be exported. He divided tax exporting into two types: tax exporting through the federal offset (via federal tax deductibility) and price/migration exporting. Phares defined the latter as "the spatial shifting of taxes among states due to market conditions that allow them to be passed on to owners of factors of production or consumers of taxed commodities, as reflected in higher prices, or due to the movement of taxpayers."[26]

Because of the significant changes that the *Tax Reform Act* of **1986** made in federal marginal tax rates and caused in the proportion of taxpayers itemizing state and local tax deductions, Phares' estimates of the rate of exporting through the federal offset are now outdated. For that reason, only Phares' estimates of each state's rate of price/migration exporting are described below. He estimates that the average rate of price/migration state tax exporting is **8.5** percent. Nevada, however, manages to export **21.7** percent of its taxes, and Delaware, **22.5** percent, while at the other end of the spectrum, South Dakota exports only **4.8** percent of its tax burden. Of course, these taxes are exported largely to residents of other states rather than to foreign nationals. States that export a relatively high percentage of their taxes have tax mixes that rely on highly exportable business or commodities taxes.

According to Phares, those taxes with the highest average rate of tax exporting are severance taxes **(34.7** percent exported) and corporation income taxes **(43.7** percent exported). He estimates that, on average, the least exportable taxes are tobacco taxes **(3.8** percent exported) and alcohol taxes **(3.8** percent exported).[27] The rate of exportation of any of these taxes can vary considerably, though. **A** state with a large tourism industry is likely to export a much higher percentage of its excise taxes on cigarettes and alcohol, for example.

Robert Tannenwald has computed the most recent estimates of the rate of tax exporting through federal deductibility of state and local taxes. For **1985,** he finds that the average rate of tax exporting through deductibility was **14** percent, with a range from **19.3** percent for New Jersey to **9.2** percent for South Dakota.[28]

Another way for states to export their taxes is to adopt special **taxes** or to make special modifications in their taxes. Two examples will be discussed here. In **1971,** New Hampshire enacted a law that taxed the income earned in New Hampshire by nonresidents. New Hampshire residents explicitly were not subject to a state income **tax.**[29] The Maine taxpayers who sued the state of New Hampshire were not harmed directly because Maine allowed them a tax credit for any income taxes paid to other states. Nevertheless, the U.S. Supreme Court ruled that New Hampshire's income tax was unconstitutional under the privileges and immunities clause of the **U.S.** Constitution, which provides that, "The citizens of each State shall be entitled to all Privileges and Immunities of citizens in the several states."[30]

A second example of tax policy designed to export taxes to residents of other states involves discriminatory taxation of out-of-state corporations. Under state corporation income taxes, the income of interstate corporations must be apportioned among the states. Most states use a three-factor formula based on the percentage of payroll, property, and sales within the state. In **1977,** a single-factor formula adopted by Iowa, which relied on sales only, was declared unconstitutional by a trial court.[31] The effect of the single-factor formula was to give an advantage to firms located in Iowa which sold the bulk of their products out of state. The trial court ruled that Iowa's single-factor formula violated the due process and equal protection clauses, and that it also subjected certain corporations to multiple taxation. Subsequently, however, both the Iowa **Supreme** Court and the **U.S.** Supreme Court upheld the constitutionality of the single-factor formula.

This action by the Supreme Court sent a signal to states that they could modify their apportionment formulas in an attempt to discriminate in favor of in-state firms. Since the Supreme Court decision, gradually, **13** states adopted formulas that give a greater weight to sales than to property or payroll.[32]

The Framework for Competition Makes a Difference

The **U.S.** Supreme Court's decision with respect to Iowa's apportionment formula had the indirect effect of reducing the uniformity of state corporate taxation. The most recent example in which the federal framework appears to have made a difference is one characteristic of the recent wave of state tax reform following passage of the *Tar Reform Act* of **1986.**

One important effect of the *Tar Reform Act* was to increase interjurisdictional tax differentials. *As* discussed in Chapter **3,** tax differentials among jurisdictions are muted by federal tax deductibility. Prior to the act, a high-income household in the **50** percent federal tax bracket that itemized deductions on its federal tax return would benefit from a federal offset equal to 50 percent of its nominal state and local taxes. If that same household were deciding between locating in two different cities, the effective state and local tax differential between the two cities would also have been reduced by 50 percent because of federal deductibility of state and local taxes.

After the *Tax Reform Act,* however, the federal marginal tax rate applicable to the highest income households fell from 50 percent *to* **28** percent. This implies that interjurisdictional tax differentials for the wealthiest families are no longer reduced by half, but by **28** percent. Other households at lower income levels might no longer itemize deductions on their federal tax returns, and thus face an even bigger increase in relevant interjurisdictional tax differentials after tax reform.

Table **7** presents the top marginal tax rates for state personal income taxes for **1985** (one year before federal tax reform) and for **1989** (by which time states had adjusted to the changes imposed by the *Tax Reform Act).* From **1985** to **1989, 19** states lowered their top personal income tax rates, while only three states raised their top tax rates.

One possible explanation for the many reductions in top tax rates involves the concept that fiscal competition among the states leads to an equilibrium pattern of state tax rates. That is, states can afford to differ in their income tax policies, but by only so much. The relatively high-tax states are constrained from imposing tax rates above a certain level by the potential for taxes to be negatively capitalized into property values, or by the potential for high-income citizens to relocate to lower-tax jurisdictions.

Table 7
Top Marginal Tax Rates for State Personal Income Taxes, Joint Returns, 1985 and 1989

States	Highest Nominal Rate (1985) (percent)	Highest Nominal Rate (1989) (percent)	Top Rate Lowered Since 1985	Top Rate Raised Since 1985
Alabama	5.00	5.00		
Alaska	n.a.			
Arizona	8.00	8.00		
Arkansas	7.00	7.00		
California	11.00	9.30	X	
Colorado	8.00	5.00	X	
Connecticut	n.a.			
Delaware	10.7	7.7	X	
Florida	n.a.			
Georgia	6.00	6.00		
Hawaii	11.00	10.00	X	
Idaho	7.50	8.20		X
Illinois	2.50	2.50		
Indiana	3.00	3.40		X
Iowa	13.00	9.98	X	
Kansas	9.00	5.95	X	
Kentucky	6.00	6.00		
Louisiana	6.00	6.00		
Maine	10.00	8.50	X	
Maryland	5.00	5.00		
Massachusetts	10.00/5.00[1]	10.00/5.00[1]		
Michigan	5.10	4.60	X	
Minnesota	14.00	8.50	X	
Mississippi	5.00	5.00		
Missouri	6.00	6.00		
Montana	11.00	11.00		
Nebraska	19.00	5.90	X	
Nevada	n.a.			
New Hampshire	n.a.			
New Jersey	3.50	3.50		
New Mexico	7.80	8.50	X	
New York	13.75/9.50[2]	7.50		X
North Carolina	7.00	7.00		
North Dakota	9.00	12.00		
Ohio	9.025	6.90	X	
Oklahoma	6.00	6.00		
Oregon	10.00	9.00	X	
Pennsylvania	2.35	2.10	X	
Rhode Island	23.15	6.43	X	
South Carolina	7.00	7.00		
South Dakota	n.a.			
Tennessee	n.a.			
Texas	n.a.			
Utah	7.75	7.20	X	
Vermont	26.50	7.00	X	
Virginia	5.75	5.75		
Washington	n.a.			
West Virginia	13.00	6.50	X	
Wisconsin	10.00	6.93	X	
Wyoming	n.a.			
Total	19	3		

n.a. —not applicable

[1]Maximum stated tax rate on earned income and annuities is 5%, and on interest dividends, and capital gains is 10%.

[2]Maximum rate on personal service income was 9.5%.

Notes: States with a limited income tax (Connecticut, New Hampshire, and Tennessee) have been excluded. Neither federal deductibility of state and local taxes nor state deductibility of federal taxes has been taken into account. The rates shown do not reflect temporary surtaxes.

Sources: U.S. Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism*, 1985-86 *Edition* (Washington, DC, 1986), pp. 80-85; and 1990 *Edition, Vol. I* (1990), pp. 29, 38-39.

According to this hypothesis, the equilibrium distribution of state income tax rates was disrupted by the federal *Tax Reform Act.* Because of lower federal marginal tax rates, as described above, interstate tax differentials effectively increased. It is possible that a number of states lowered their top individual income tax rates in response to the *Tax Reform Act,* and in so doing were able to move toward the original pattern of effective interstate tax differentials.

Another example of the importance of the federal framework for tax competition involves the state and local taxation of insurance companies. The national system of retaliatory taxes, tolerated by the U.S. Supreme Court, may well be the reason why most states levy an insurance premium tax, rather than another form of tax on insurance comuanies. and why the most common tax rate is 2 percent. To see why retaliatory taxes may have this effect, it is important to note that a typical insurance company has a large proportion of its business outside of the state in which it is domiciled. If Minnesota were to raise its premium tax, for example, insurance firms domiciled in Minnesota would not only have to pay higher taxes to Minnesota but they would also have to pay higher retaliatory taxes to other states. In fact, because of the importance of premiums written out of state, increased retaliatory taxes are typically many times greater than the increased tax liability owed to the state that originally raised the tax rate. For example, the Minnesota tax study estimated that if Minnesota increased its premium tax by 1 percentage point, for every extra $1 that life insurance companies paid to the state, they would have to pay $11.42 to other states in additional retaliatory taxes.[33]

Service Competition

It has become increasingly apparent in recent years that state and local governments are engaged not only in tax competition but in competition over service levels as well. A vivid description of current patterns of service competition is provided by John Shannon.[34]

Shannon describes two patterns of interjurisdictional service competition. The first he calls the "pacesetter phenomenon." According to this pattern, high-spending state or local governments adopt some innovative public sector program (e.g., kindergarten services, heavily subsidized community colleges). Proponents of this new public service pressure elected representatives in other jurisdictions to adopt the same public service package. As Shannon states, "The forces of competitive emulation convert yesterday's expensive novelty (or public sector frill) into today's standard budgetary fare."[35]

Shannon calls the other pattern of interjurisdictional competition "the catch-up imperative." In this category, he describes the pressure that relatively low-spending state and local governments feel to improve their educational and infrastructure systems in order to attract employers and upper income households.

> This "catch up" imperative is dramatically illustrated by the economic development strategies of many of the poorest states in the federation—Mississippi, South Carolina, Arkansas, and Tennessee. In virtually every recent account highlighting the resurgence of the states, these Southern jurisdictions are cited for their willingness to raise taxes—the price they have to pay to keep their educational systems competitive. Their leaders are convinced that both their short and long range economic development interests leave them no alternative.[36]

A review of interjurisdictional competition along each type of major state and local service category is beyond the scope of this report. We will focus on three services that are of high interest: education, public welfare, and public works infrastructure.[37]

Expenditure Differentials

Although businesses and individuals will be interested in services rather than expenditures, the public sector is sorely lacking in adequate measures of output or service levels. For that reason, most statistics and empirical work substitute "expenditures" for the more theoretically relevant "service levels."

As Tables 8 and 9 show, the range among the states in their per capita state and local expenditures on elementary and secondary education and on public welfare is considerable. In 1988, Alaska, the state with the highest per capita expenditure on education, maintained a level that was 241 percent of the U.S. average, while Alabama, the lowest spending state, maintained a level only 67 percent of the U.S. average. The range of spending on public welfare appears to be slightly less. New York, the highest spending state, spent $707 per capita in 1988, or 201 percent of the U.S. average, while Nevada's per capita spending on public welfare, at 48 percent of the U.S. average, was the lowest in the nation. Census data also could be used to indicate the range in the states' levels of expenditure on the various categories of public works infrastructure.

Table 8
State Rankings on Spending for Education—FY 1988
State-Local Direct Elementary and Secondary Education Expenditure

Rank	State	Dollars Per Capita
1	Alaska	$1,660
2	Wyoming	1,122
3	New York	934
4	New Jersey	828
5	Minnesota	799
6	Wisconsin	786
7	Montana	785
8	Michigan	783
9	Oregon	779
10	Connecticut	774
11	Vermont	765
12	Arizona	751
13	Washington	743
14	Colorado	743
15	Delaware	711
16	Virginia	700
17	Pennsylvania	699
18	Texas	696
19	Ohio	693
20	Maryland	687
21	Georgia	687
22	New Mexico	686
23	Massachusetts	683
24	Maine	680
25	Nebraska	676
26	New Hampshire	675
27	Kansas	668
28	Utah	667
29	California	666
30	North Dakota	661
31	Iowa	656
32	Rhode Island	654
33	West Virginia	632
34	Indiana	630
35	South Carolina	628
36	Nevada	617
37	Florida	616
38	Illinois	613
39	South Dakota	612
40	North Carolina	609
41	Missouri	593
42	Oklahoma	586
43	Mississippi	556
44	Arkansas	552
45	Idaho	547
46	Hawaii	513
47	Louisiana	508
48	Kentucky	499
49	Tennessee	475
50	Alabama	461
U.S. Average		$690

Source: U.S. Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism, 1990 Edition, Volume II* (Washington, DC, 1990), p. 197.

Table 9
State Rankings on Spending for Welfare—FY 1988
State-Local Direct Public Welfare Expenditure

Rank	State	Dollars Per Capita
1	New York	$707
2	Alaska	591
3	Massachusetts	559
4	Minnesota	497
5	Rhode Island	497
6	Wisconsin	476
7	Michigan	476
8	Maine	450
9	California	433
10	Ohio	413
11	Connecticut	405
12	Pennsylvania	382
13	New Jersey	381
14	North Dakota	365
15	Vermont	354
16	Illinois	343
17	Maryland	336
18	Iowa	316
19	Washington	316
20	Montana	308
21	Kentucky	303
22	Tennessee	302
23	Oklahoma	291
24	Hawaii	288
25	Nebraska	273
26	Colorado	271
27	Indiana	265
28	Georgia	261
29	West Virginia	261
30	New Hampshire	256
31	Louisiana	251
32	New Mexico	246
33	Mississippi	241
34	Arizona	238
35	Oregon	235
36	Arkansas	233
37	South Dakota	230
38	Kansas	225
39	Utah	224
40	Missouri	224
41	North Carolina	219
42	Virginia	202
43	Delaware	200
44	Idaho	200
45	Florida	197
46	Wyoming	190
47	South Carolina	188
48	Texas	180
49	Alabama	170
50	Nevada	168
U.S. Average		$352

Source: U.S. Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Fedemlism, 1990 Edition, Volume II* (Washington, DC, 1990), p. 198.

Although statistics on per capita spending by each state allow us to compare the range in spending among the states on a variety of expenditure categories, there are great limitations to the usefulness of these statistics. As noted above, taxpayers ultimately are interested not in the level of spending but in the quality of services. The fact that one state spends twice as much per capita on education as another state does not necessarily indicate that educational output or quality is double that of the second state. Factors such as the cost of living and governmental efficiency will create a divergence between dollars spent and quality of service. Another problem is that the level of per capita spending, although a way to compare all types of spending using a single statistic, will never be the most appropriate statistic for any single expenditure category. For example, the level of highway spending might best be measured as dollars spent per mile of highway, while the level of educational spending might best be measured as dollars spent per pupil.[38]

Effects of Service/Expenditure Differentials

The literature estimating the effects of differential spending on education, public welfare, and public works infrastructure falls into three categories: studies of capitalization, mobility, and state economic growth. There have been many more studies of the effects of spending on education than on the other two functions.

In the previous section on tax competition, we explained the approach of capitalization studies and noted that Oates found evidence that property taxes and spending on education were partially capitalized into the property values of a group of New Jersey suburbs. Subsequent studies have elaborated on this result. Harvey Rosen and David Fullerton attempted to measure the extent to which differences in the quality of education among local governments were capitalized into property values.[39]

Rosen and Fullerton reestimated Oates' equations, substituting fourth-grade student achievement test scores for Oates' measure of the level of spending in each community. They found that the equation's explanatory power was improved by this respecification. This indicates, as suspected, that taxpayers care about the quality of school systems rather than about the level of school spending per se.

Matthew Edel and Elliot Sclar focus on changes in the level of capitalization of education spending in a cross-section time-series study of Boston suburbs between 1930 and 1970.[40] They find that school spending had a positive effect on property values (higher school spending tended to increase property values), but that the degree of this positive impact declined over time. They interpret this result as a supply adjustment phenomenon. That is, during the "baby boom" years of the 1950s, they hypothesize that there was a shortage of Boston suburbs with good elementary and secondary education systems, leading to a high level of capitalization of education spending into property values as families bid up the price of homes in those communities with the good education systems. As other suburbs had the opportunity to expand their school systems, the degree of capitalization naturally fell.

Edel and Sclar also examine one component of infrastructure spending—dollars spent on maintenance per mile of highway. They found that the level of highway expenditures was not significantly capitalized into property values among the Boston suburbs in any time period; that is, larger highway expenditures did not tend to increase property values. They attribute this in part to the fact that highway expenditures are characterized by significant spillover benefits. By increasing spending on highways, taxpayers in the central Boston suburbs automatically provide benefits to commuters from more distant suburbs. By definition, when significant spillover benefits exist, property owners do not benefit from the full amount of the public spending. Because they do not benefit from all of the expenditure on highways, the level of spending is not expected to be reflected in property values.

Other evidence regarding expenditure competition comes from the **20** years of studies on the effects of public welfare expenditures on migration patterns. The history of this research has been one of increasingly complex specification of the theory of interstate and interregional migration and increasingly precise measurement of the appropriate variables. Richard Cebula, who reviewed this literature in **1980,** noted that the earliest studies examined the relationship between total interstate migration and welfare levels.[41] Most of these studies failed to find a significant relationship between public welfare spending and migration—public welfare spending was not strongly associated with migration.

The later studies, which used disaggregated data, generally used race as a proxy for income group. Most of these studies found that black migration bore a significantly positive relationship to the level of welfare benefits in a state (i.e., black migration was associated with higher levels of welfare spending), but that white migration bore a significantly negative relationship to the same variable (i.e., white migration was associated with lower levels of welfare spending).

The most recent studies have incorporated the possibility that the relationship between welfare benefits and mobility is bidirectional. That is, not only do levels of welfare benefits affect migration patterns, but migration patterns affect the level of welfare benefits in a state either because of the reaction of state officials or because of the resulting changes in voter support for welfare payments.

A recent study by Paul Peterson and Mark Rom provides an example. Their empirical work indicates that policymakers take the poverty rate and the potential interstate migration of the poor into account in setting welfare policy. They also find that benefit levels can affect the location of the **poor. According** to their estimates: "A state offering **$722** per month in welfare benefits will have a poverty rate of **13.6%** as opposed to the **12.7%** poverty rate in a state guaranteeing **$476** per month."[42]

This finding, however, does not demonstrate that higher benefits attract welfare migrants. It is possible that higher benefits reduce work incentives and encourage dependence, thereby increasing the rate of poverty. Alternatively, increasing poverty rates may produce greater advocacy on behalf of the poor, thus increasing benefits.

Several direct, state-specific studies suggest that there is relatively little benefit-seeking migration. **A 1981** study in Michigan and a **1986** study in Wisconsin each found that only about **3** percent of new applicants for Aid to Families with Dependent Children could be said to have moved into the state for better **benefits.**[43] **A 1986** study in Minnesota (whose benefits were then the fifth highest in the nation) concluded that:

1) About **19** percent of the newly approved AFDC households were newcomers to the state.

2) Of these newcomers, 58 percent had previously lived in Minnesota, and one in four came from states whose AFDC grants were as high as Minnesota's.

3) **6.4** percent of the new AFDC households statewide may have moved (into the state) because of Minnesota's grants.

4) "The availability of Minnesota's AFDC-UP program did not seem to be an important attraction to families moving to Minnesota."

(5) The number of low-income households entering the state **was** largely offset **by** the number leaving.

(6) While welfare migration **was** "not having a serious impact on state AFDC caseloads," it **was** "contributing to caseload increases in counties bordering North and South Dakota and in Hennepin and Ramsey counties" (the Twin Cities area).[44]

Robert Moffitt has reviewed the literature on interstate welfare migration and has concluded that "the data **do** not reveal a strong effect nationwide." People move for many reasons, "particularly in response to different economic conditions and different individual economic circumstances." Thus, there is no strong evidence that poor persons migrate from state to state to seek higher public assistance **benefits.**[45]

The final set of studies, reviewed in Figure **2,** examines the effects of spending on state economic growth, measured by percentage change in employment, percentage change in real value added, percentage change in real capital stock, the level of state personal income, and state employment growth rates. Tau variables as well as a number of other variables are also included as determinants of state economic growth.

The results of the variables representing the level of education spending appear to be most consistent. Each of the four studies reviewed in Figure 2 finds that the level of spending on education has a positive effect on a state's **economic** growth—that **is,** greater spending on education **was** associated with faster economic growth. These studies have very different messages regarding the effects of public welfare spending, however. The Plaut and Pluta study found that the level of spending on public welfare had a positive effect on growth in real capital stock; the Wasylenko and McGuire **(1985)** study found no statistically significant effect of welfare expenditures on state employment growth rates; and the Helms study found that tax- or fee-financed increases in transfer payments have a significantly negative effect on the level of state personal income. Only two of the studies estimate the impact of spending on public works infrastructure. Helms includes

Figure **2**
Literature Review:
Econometric Studies of the Effects of Spending Differentials

Study	Jurisdiction Level	Variable to be Explained	Expenditure Variables	Results
Plaut & Pluta (1983)	State	Percentage changes in employment, real value added, and real capital stock, 1967-72 and 1972-77	1) Total state and local education expenditures as a percentage of state personal income 2) Total state and local welfare expenditures as a percentage of state personal income	Education variable has a significantly positive effect on growth in real value added and in employment; welfare variable has a significantly positive effect on growth in real capital stock
Helms **(1985)**	State	State personal income, 1965-78	1) State and local expenditures on public health 2) State and local expenditures on highways 3) Local school expenditures 4) State higher education expenditures 5) State and local transfer payment expenditures 6) **All** other state and local expenditures	Tax **or** fee financed increase in transfer payments has a significantly negative effect on income; tax or fee financed increases in other types of state and local spending generally have a significantly positive effect on state income
Wasylenko **& McGuire (1985)**	State	State employment growth rate, 1973-1980, for *six* industries: manufacturing transportation, communication, and public utilities; whosesale trade; retail trade; finance, insurance, and real estate; and **services**	1)State and **local** expenditure on education **as** a percentage of state income **2)** State and **local** expenditure on welfare **as** a percentage of state income	Spending on education has a significantly positive effect on overall employment growth and on employment growth in the retail trade and finance industries; **welfare** expenditures do not have a significant effect on employment change in any industry
McGuire & Wasylenko (1987)	State	State employment growth rate, 1973-77 and 1977-84, by industry	Per capita state and local expenditures on welfare, highways, higher education, and elementary and seconday education	Highway spending coefficient negative and significant in four of **six** regressions; higher education positive and significant in two of *six* regressions; and other education negative and signficant in one of *six* regressions

Source: Cmpilation by author.

state and local spending on highways as one of his independent variables and finds that such spending has a significantly positive effect on state personal income, all else equal. On the other hand, McGuire and Wasylenko (1987) find that highway spending has a statistically significant and negative effect on state employment growth.

The Helms study is notable in that it explicitly incorporates a state budget constraint. That is, rather than testing whether various expenditure categories have a significant effect on state personal income, the Helms study tests whether an increase in spending financed by either taxes or fees has a significant effect on income. For example, he finds that a tax-financed increase in transfer payments would on average reduce a state's personal income by 0.12 percent, whereas a tax-financed increase in highway spending would increase a state's personal income by 0.05 percent.[46] This approach is helpful because it advances the level of the analysis. It is useful to know that education spending has a positive effect on employment growth in a state, for example. However, since taxes or fees must usually be increased to finance an increase in education spending, the more relevant question is whether the combined increase in taxes or fees and the increase in spending has a positive effect on the state's economy.

The Service/Expenditure Equilibrium

Another interesting result of the Peterson and Rom study is their examination of the differences among the states in their levels of welfare benefits over time and their explanation of these differences. They suggest that migration of potential welfare recipients, in combination with the reactions of public officials to these migration patterns, has a constraining effect on a state's spending for welfare. On the other side, states with liberal (here defined as states willing to support relatively high government spending) political cultures or with relatively high levels of political competition and state wealth are subject to forces that tend to increase welfare spending. According to Peterson and Rom, the interaction of the forces for constraint and for spending contributes to a convergence of welfare policies among the states and leads to a long-term equilibrium in the pattern of state spending on welfare.

In 1986, a major study by the U.S. Department of Education, ***A Nation at Risk,*** sparked interest in problems with the nation's education system.[47] To some extent, in reaction to the concern generated by that report, state governments have increased the real level of spending on education in recent years.[48] It would be interesting to extend Peterson and Rom's conceptual framework and empirical methodology to state spending on education. This research could potentially determine the forces affecting the various levels of spending and could test whether there is a similar interstate equilibrium on this expenditure dimension. It is possible that the low-spending states are being forced to increase their spending by a proportionately greater amount than the high-spending states, thereby reducing the range in spending among the states.

The Importance of Spillovers

This literature review supports a distinction between categories of spending that exhibit beneficial spillovers and those that do not. When the residents of a state or locality are able to appropriate the bulk of the benefits from a particular category of spending, then this spending is likely to increase property values, or to have a positive effect on personal income or employment. The opposite is true for those categories of spending exhibiting significant benefit spillovers. Both highway and welfare spending provide significant benefits to residents of other communities.[49] Most of the benefits of highway spending are received by residents of the state, but a larger proportion of the benefits of welfare spending spill over to residents of other states.

The distinction between spending categories that exhibit beneficial spillovers and those that do not is an important one for interstate and interlocal competition. Both states and localities will find it difficult to increase spending in areas with significant beneficial spillovers. In the absence of grants-in-aid and tax expenditures, each local government would increase spending on wastewater treatment, for example, only up to the point at which its taxpayers valued the increased benefits as much as the resulting increase in their tax liabilities. This equilibrium would be inefficient from society's point of view, though. Taxpayers in the community are not taking the benefits to those outside their community into account. If they could be induced to take those external benefits into account, they would support the higher level of spending that constitutes the best level from society's point of view.

The existence of beneficial spillovers traditionally has been a basis for interfering with the forces of interstate and interlocal competition. One of the rationales for intergovernmental grants is the existence of spillover benefits. If each additional dollar of wastewater treatment were to provide 20 cents in benefits outside the community, for example, the efficient grant would be a matching one by which a state government or the federal government would pay for the 20 cents generated in external benefits. Tax expenditures, such as tax deductibility, also have been supported on the basis of spending spillovers. Specifically, at least one analyst has argued that federal deductibility of state and local taxes acts like a matching grant that subsidizes state and local redistributive spending.[50] A third alternative that has been suggested is for communities and states to cooperate rather than compete in deciding on expenditure policies that involve important beneficial spillovers.[51]

Conclusion

State and local governments compete in many arenas. This chapter examined various aspects of tax and service competition.

Four different types of tax competition were distinguished. State and local governments compete with each other regarding their overall levels of taxation, with respect to the levels of particular taxes, via special tax provisions meant to obtain or retain mobile business firms, and by attempting to export some portion of their taxes to citizens of other jurisdictions.

There is no simple measure of the relative level of business taxes among the states, nor is there a solid consensus regarding the effects of business taxes on the geographical distribution of business activity within the United States. As recently as five years ago, researchers had concluded that state and local taxes had little, if any, effect on business location decisions. Recently, certain scholars have questioned this consensus. At present, some researchers maintain that if properly measured in empirical work, state and local taxes are found to have a statistically significant and strongly negative effect on the level of capital investment—that is, there is a strong association between higher taxes and lower capital investment. Another researcher concludes that over some time periods and for certain states, taxes do reduce employment or income growth, but for other time periods and other states, higher taxes do not have a statistically significant effect on the various measures of business activity. Still other researchers continue to maintain that the evidence to date indicates that state and local taxes have little, if any, effect on the location of business activity.

The relative level of state and local taxes on individuals is simpler to measure, in part because the tax incidence issues raised are less complex than in the case of business taxes. Empirical work indicates that, holding other factors equal, relatively high property taxes tend to reduce property values. This is one indication that individuals are aware of interjurisdictional tax differences and adjust their locational decisions in response to these differentials. Another piece of evidence is a study of household moves within the Minneapolis-St. Paul metropolitan area, which concluded that households were more likely to move to low-tax than to high-tax communities, all else equal.

Competition on a tax-by-tax basis as well as competition with respect to overall levels of taxation is apt to take place, at least in part, on an implicit basis. State and local governments may not deliberately set their overall tax levels or the levels of particular taxes so as to attract or retain businesses or high-income households. Rather, in certain instances, state and local policymakers will simply be constrained in their choice of feasible tax policies. For example, Texas legislators may realize that setting cigarette taxes higher than 41 cents a package is inviting bootlegging operations as long as North Carolina, a not-too-distant tobacco-producing state, continues to tax cigarettes at 2 cents a package. Other Texas legislators may even be concerned that the recent tax increase from 26 to 41 cents per pack was excessive in the light of the potential for cigarette bootlegging.

The final type of tax competition reviewed was the efforts of governments to export taxes to other jurisdictions. The most recent data indicate a wide range of tax exporting by states (other than through federal deductibility of state and local taxes).

The discussion of tax competition was concluded with examples in which the federal framework appears to make a difference in the equilibrium pattern of tax rates. Federal deductibility of state and local taxes, which moderates effective differentials in state and local income and property taxes, was reduced in value by the 1986 *Tar Reform Act.* Possibly in response to this change, 19 states have reduced their top individual income tax rates since the enactment of federal tax reform.

Whereas state income tax rates exhibit a considerable range even after the *Tax Reform Act* (from zero in non-income tax states to a top rate of 12 percent in North Dakota), most states levy an insurance premiums tax at a 2 percent rate. The reason given for this clustering of state insurance premiums tax rates is the system of state retaliatory taxes tolerated by the U.S. Congress and Supreme Court.

Service competition was then explored, beginning with a description of ways in which interjurisdictional competition may pressure state and local governments to fund additional public services via a "pacesetter" or "catch-up" mechanism. Although it was noted that taxpayers are interested in service levels, not spending levels, the general lack of good measures of public sector output frequently made it necessary to rely on data on expenditure levels as proxy measures for service levels.

Three types of empirical studies provide evidence on the effects of state and local spending differentials: capitalization, mobility, and state economic growth. The studies generally indicate that spending on education is positively capitalized into property values or increases state economic growth. However, in some studies, spending on highways appears to have an insignificant or negative effect on either property values or state economic growth. Empirical work on the relation between public welfare benefits and the migration of potential welfare recipients has not produced clear-cut results. Similarly, the evidence regarding the effects of welfare spending on state economic growth is mixed.

The discussion of service competition concludes by arguing for a distinction between those categories of state and local spending that exhibit beneficial spillovers and those that do not. According to economic theory (and supported in part by empirical evidence), when the residents of a state or locality are able to appropriate the bulk of the benefits from a public expenditure, this spending tends to increase property values, personal income, and employment. The opposite tends to be true for those categories of spending that exhibit significant benefit spillovers, such as highway and public welfare expenditures.

In the next chapter, we examine two more arenas of state and local government competition—regulatory competition and competition via economic development incentives.

Notes

[1] U.S. Advisory Commission on Intergovernmental Relations, *Interstate Tax Competition* (Washington, DC, March 1981).

[2] ACIR, *Interstate Tax Competition*, Revised Appendix Table A 2

[3] Andrew Reschovsky, Gregory Topakian, Francoise Carre, Randall Crane, Peter Miller, and Paul Smoke, *State Tax Policy: Evaluating the Issues* (Cambridge, Massachusetts: MIT and Harvard University, Joint Center for Urban Studies, 1983), pp. 131-132.

[4] Reschovsky et al., p. 151.

[5] Steven D. Gold, "Taxation of Business by American State and Local Governments," *Government and Policy* 5 (1987): 7-18.

[6] ACIR, *Interstate Tar Competition*, p. 69, reference to an article by Richard F. Fryman in the *National Tax Journal*, June 1969.

[7] Reschovsky et al., pp. 131-132.

[8] "An Evaluation of Oklahoma Business Climate," prepared for the Oklahoma State Chamber of Commerce and State of Oklahoma Department of Economic Development, Price Waterhouse, July 10, 1985.

[9] New York State Legislative Tax Study Commission Staff, "Interstate Business Locational Decisions and the Effect of the State's Tax Structure on After-Tax Rates of Return of Manufacturing Firms," Staff Working Paper, December 31, 1984.

[10] James A. Papke and Leslie E. Papke, "Measuring Differential State-Local Tax Liabilities and Their Implications for Business Investment Location," *National Tar Journal* 39 (September 1986): 357.

[11] Robert Carroll and Michael Wasylenko, "The Shifting Fate of Fiscal Variables and Their Effect on Economic Development," in National Tax Association-Tax Institute of America, *1989 Proceedings of the Eighty-Second Annual Conference* (Columbus, Ohio, 1990), p. 289.

[12] The studies summarized in Figure 1 are D. Carlton, "The Location and Employment Choices of New Firms: An Econometric Model with Discrete and Continuous Endogenous Variables," *The Review of Economics and Statistics* 65 (1983): 440-449; T. R. Plaut and J. E. Pluta, "Business Climate, Taxes and Expenditures, and State Industrial Growth in the U.S." *Southern Economic Journal 50* (1983): 99-119; R. J. Newman, "Industry Migration and Growth in the South," *Review of Endnoniics and Statistics* 65 (February 1983): 76-86; T. Bartik, "Business Location Decisions in the U.S.: Estimates of the Effects of Unionization, Taxes and Other Characteristics of States," Jounial *of Business and Economic Statistics* 3 (1985): 14-22; L. J. Helms, "The Effect of State and Local Taxes on Economic Growth: A Time Series—Cross Section Approach,'' *Review of Economics and Statistics* 67 (November 1985): 574-582; M. Wasylenko and T. McGuire, "Jobs and Taxes: The Effect of Business Climate on States' Employment Growth Rates," *National Tm Journal* 38 (December 1985): 497-512; L. Papke, "Subnational Taxation and Capital Mobility: Estimates of Tax Price Elasticities," *National Tar Journal* 40 (June 1987): 191-204; T. McGuire and M. Wasylenko, "Employment Growth and State Government Fiscal Behavior: A Report on Economic Development for States from 1973 to 1984," report prepared for the New Jersey State and Local Expenditure and Revenue Policy Commission, July 2, 1987.

[13] D. Carlton, "The Location and Employment Choices of New Firms: An Econometric Model with Discrete and Continuous Endogenous Variables," *The Review* of *Economics and Statistics* 65 (1983).

[14] Similar results are reported in James A. Papke and Leslie E. Papke, "Measuring Differential State-Local Tax Liabilities and Their Implications for Business Investment Location," *National Tar Journal* 39 (September 1986): 357-366.

[15] Tax capitalization can produce a divergence between the statutory and effective incidence of property taxation of owner occupied homes, though. For example, a household paying extraordinarily high property taxes may have been compensated for these tax payments by an especially low purchase price. The effects of tax capitalization on incidence are very difficult to untangle, however, and are often ignored.

[16] The following figures were found in Government of the District of Columbia, Department of Finance and Revenue, Office of Economic and Tax Policy, ***District** of Columbia Tax Facts, Fiscal Year 1988.*

[17] Wallace E. Oates, "The Effects of Property Taxes and Local Spending on Property Values: An Empirical Study of Capitalization and the Tiebout Hypothesis," *Journal of Political Economy* 77 (1969): 957-71.

[18] Howard S. Bloom, Helen F. Ladd, and John Yinger, "Are Property Taxes Capitalized into House Values?" in George R. Zodrow, ed., *Local Provision* of *Public Services: The Tiebout Model after Twenty-Five Years* (New York: Academic Press, 1983), pp. 145-163.

[19] Bloom et al., "Are Property Taxes Capitalized into House Values?'' p. 161.

[20] Andrew Reschovsky, "Residential Choice and the Local Public Sector: An Alternative Test of the 'Tiebout Hypothesis','' *Journal* of *Urban Economics* 6 (1979): 501-520.

[21] U.S. Department of Commerce, Bureau of the Census, *State Government Tar Collections in 1988* (Washington, DC, 1989).

[22] U.S. Advisory Commission on Intergovernmental Relations, *Cigarette Tax Evasion: A Second **Look*** (Washington, DC, 1985), p. 6.

[23] William F. Fox, "Tax Structure and the Location of Economic Activity along State Borders," *National Tar Journal* 39 (December 1986): 387-401.

[24] The same phenomenon exists among local governments, but the following section will focus only on state governments in order to limit the length of the discussion.

[25] Frederick D. Stocker, "Toward Strengthening North Dakota's Fiscal System," National Education Association and North Dakota Education Association, undated.

[26] Donald Phares, *Who Pays State and Local Taxes?* (Cambridge, Massachusetts: Oelgeschlager, Gunn and Hain, 1980), p. 64.

[27] Ibid., p. 67.

[28] Robert Tannenwald, "The Changing Level and Mix of Federal Aid to State and Local Governments," *New England Economic Review* (May/June 1989): Appendix Table. Unlike previous researchers, Tannenwald takes into account federal deductibility of both business and personal taxes.

[29] Actually, as described by Jerome R. Hellerstein, "In one of the strangest provisions of any tax law in the county, the statute also levied a tax on the income of New Hampshire residents on income earned outside the state, but immediately nullified its effect by another provision that exempts such income from tax." Jerome R. Hellerstein, "State Tax Discrimination against Out of Staters," *National Tm Journal* 30 (March 1977): 113.

[30] Austin v. State of New Hampshire, 420 U.S. 656 (1975).

[31] Moorman Manufacturing Co. v. Bair, Polk County Dist. Ct. (1977).

[32] Ten states double-weight sales (Connecticut, Florida, Illinois, Kentucky, New York, North Carolina, Ohio, Oregon, West Virginia, and Wisconsin). Missouri allows double-weighting for retailers only. Minnesota gives sales a 70% weight. Nebraska is phasing in a single-factor formula based on sales. *1990 Multistate Corporate Tar Guide* (New York Panel Publishers).

[33] William F. Fox, "Insurance Taxation in Minnesota," in Robert D. Ebel and Therese J. McGuire, eds., *Final Report* of *the Minnesota Tax **Study** Commission, Volume 2* (St. Paul: Butterworth Publishers, 1987), p. 276.

[34] John Shannon, "Federalism's 'Invisible Regulator'—Interjurisdictional Competition," in Daphne A. Kenyon and John Kincaid, eds., *Competition among States and Local Governments: Efficiency and Equity in American Federalism* (Washington, DC: The Urban Institute Press, 1991).

[35] Ibid.

[36] Ibid.

[37] Public works infrastructure includes a wide range of categories. For its report to the President and the Congress on the state of the nation's public works infrastructure, the National Council on Public Works Improvement included these categories: roads, streets, highways and bridges; airports and airways; mass transit; intermodal aspects of transportation; water projects; water supply; wastewater treatment; and hazardous waste management. As will become clear, there is very little solid information regarding the effects of the various components of infra-

structure on state and local competitiveness. National Council on Public Works Improvement, ***The Nation's Public Works: Executive Summaries of Nine Studies*** (Washington, DC, **1987).**

[38] For discussion of such potential workload measures, **see U.S.** Advisory Commission on Intergovernmental Relations, ***Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity,*** by Robert W. Rafuse, Jr. (Washington, DC, 1990).

[39] Harvey **S**. Rosen and David **J**. Fullerton, "A Note on Local Tax Rates, Public Benefit Levels, and Property Values," ***Journal of Political Economy*** **85 (1977).**

[40] Matthew Edel and Elliot Sclar, "Taxes, Spending, and Property Values: Supply Adjustment in a Tiebout-Oates Model," ***Journal of Political Economy*** **82 (1974).**

[41] Richard J. Cebula, "Voting With One's Feet: A Critique of the Evidence," ***Regional Science and Urban Economics*** 10 (1980): **91-107.**

[42] Paul E. Peterson and Mark C. Rom, 'American Federalism, Welfare Policy, and Residential Choices," ***American Political Science Review*** **83** (September **1989): 723.**

[43] Michigan Department of Social Services, ***Final Report on Immigration to Michigan by GA and AFDC Applicants*** (January **1982)** and Wisconsin Expenditure Committee, ***The Migration Impact of Wisconsin's AFDC Benefit Levels,*** Report of the Welfare Magnet Study Committee, **1986.**

[44] Minnesota Office of the Legislative Auditor, ***Aid to Families with Dependent Children*** (St. Paul, January **1987),** pp. **13-20.**

[45] Robert Moffitt, "Welfare Reform in the **1990s**: The Research View," ***Intergovernmental Perspective*** **17** (Spring **1991): 33.**

[46] L. Jay Helms, "The Effect **of** State and Local Taxes on Economic Growth: A Time Series—Cross Section Approach," ***Review of Economics and Statistics*** **(1985): 578-9.**

[47] U.S. Department of Education, ***A Nation at Risk*** (Washington, DC, **1986).**

[48] Gary Putka, 'Teachers Get More **Pay** and **Power** in the **Wake** of Reform Movements," ***Wall Street Journal,*** September **21, 1987.**

[49] It is important to note that not all benefits of welfare spending flow to individuals on welfare. High-income citizens benefit either because they view the welfare system **as** a form of social insurance or because they receive psychic benefits **from** contributing some of their income to the **poor.**

[50] William **H.** Oakland, "Income Redistribution in a Federal **System**," in George **R. Zodrow**, ed., ***Local Provision of Public Services: The Tiebout Model after Twenty-Five Years*** (New York: Academic Press, **1983),** p. **138.**

[51] See, for example, Edward **M.** Gramlich, "Cooperation and Competition in Public Welfare Policies," ***Journal of Policy Analysis and Management 6*** (Spring **1987): 417-431.** Gramlich argues that "in a wide range **of** public welfare applications, cooperation works better than competition" **(p. 428).**

Chapter 5

Arenas in Which Governments Compete: Regulation and Economic Development

Competition among state and local governments is not limited to fiscal (tax and service) competition. This chapter broadens the discussion to consider regulatory competition and competition for economic development. Regulation is perhaps the least addressed arena of interjurisdictional competition. Competition for economic development, however, is probably the most visible, and certainly the most contentious, form of competition among state and local governments.

Regulatory Competition

State and local regulation encompasses a broad set of issues. Among other activities, the states regulate occupations and professions, labor conditions and compensation, and corporate organization and governance. More than 800 occupations and professions are subject to state regulation.[1] Another important form of state economic regulation is regulation of particular industries, such as insurance, electric power, gas, and water supply. In addition to economic regulation of specific occupations or industries, states impose a wide spectrum of so-called "social regulations" designed to achieve health, safety, and environmental objectives. Localities in the United States have their own regulatory sphere, including zoning, land use controls, and building regulations, among others. Because of the great number of state and local regulations, their complexity, and the relative lack of previous research on interjurisdictional regulatory competition, we will limit our focus in this section to a few important themes.

Explicit versus Implicit Competition

Some regulatory competition is explicit, such as Delaware's efforts over the years to attract corporate headquarters or incorporations by imposing the least stringent regulations on corporate activities. Nearly half of the companies listed on the New York Stock Exchange are incorporated in Delaware.[2]

Regulatory competition can also be implicit. Recall that we have defined implicit competition as the manner in which the free movement of goods, services, people, and capital constrains the actions of independent governments in a federal system. Consider the case of state regulation of insurance companies. If **a** particular state legislature acts to reduce allowable premiums or to increase required benefit levels to an extent unmatched by other states, eventually the more restrictive state will find that its insurance companies will leave to conduct business in the more lenient states. Each state legislature is constrained in the range of policies toward insurance companies it can adopt, whether or not the state is aware that it is in competition with the other **49** states.

Alternative Views of State Regulatory Policies

The ***Development Report Card*** of ***the States*** and Vaughan. Pollard, and Dyer's ***The Wealth*** of ***States*** provide two, nearly opposite, views on state regulatory policies.[3] The ***Report Card*** evaluates regulatory policies of the states along with a wide array of other policies in its analysis of the quality of differing state policy environments as a means of promoting a state's economic future. ***The Devel-***

opment Report Card adds points to a state's policy score for a number of regulatory policies, including:

- Required competency tests for high school graduation;
- Regulations on hazardous waste management and disposal that are more comprehensive than those mandated by the federal government;
- Requirements that owners selling a property certify the absence of hazardous materials on the property;
- Prohibition of the use of lead products in drinking water systems; and
- Laws protecting farmers from legal actions against certain normally accepted farming practices.

The *Wealth of States*, on the other hand, focuses on the potential that state regulation has for dampening the entrepreneurial spirit that is essential to creating wealth within a state. Vaughan, Pollard, and Dyer describe how the regulation of Occupations can create barriers to entering a profession or prevent competition among existing businesses. They advocate a reevaluation of much of traditional state regulation in order to promote economic development. Some of their recommendations to policymakers include:

- Review state Occupational licensing to identify opportunities for divesting state responsibilities to private boards or for eliminating all requirements.
- Identify regulatory barriers to the provision of services, such as health care and day care.
- Establish carefully monitored demonstration projects to determine the effects of relaxing or reforming regulations.[4]

One policy that both the *Development Report Card* and *The Wealth of States* agree on is the importance of streamlining state regulations, reducing the paperwork imposed on individuals and business, and establishing "one-stop" permitting centers when possible.

Regulation and Interstate Commerce

Regulatory activities of the states also raise issues of interference with interstate commerce. Under what circumstances do state regulatory policies conflict with the commerce clause, which limits states' power to interfere with interstate commerce? Two topics of recent interest are state regulation of hostile takeovers and the effects of varying state product liability laws.

State legislatures are motivated to restrict hostile takeovers by the desire to retain the jobs the state already has, and to court footloose corporations that might consider moving their headquarters to a state that provides corporate management with strong protection against hostile takeovers. For example, in Pennsylvania, which recently enacted the nation's most stringent antitakeover legislation:

> State legislators are still smarting over an attempt by Mr. Pickens in 1984 to acquire Pittsburgh-based Gulf Oil Corp. His maneuvers ultimately drove the company into the arms of Chevron Corp. of San Francisco. As a result, Pittsburgh lost 1,500 jobs and a valued corporate resident.[5]

Until 1987, the states played a small role in regulating takeovers because of limitations imposed by U.S. Supreme Court decisions. In 1982, the Supreme Court ruled that an Illinois law that attempted to limit hostile takeovers was unconstitutional because it posed a substantial impediment to interstate commerce, and was in conflict with the *Williams Act* because it favored the interests of management over the interests of shareholders and issuers of tender offers.[6]

In April 1987, the Supreme Court reversed its previous stance when it upheld an Indiana act that (1) gives existing stockholders greater voting rights than new stockholders and (2) increases the required time for completing a takeover.[7] Since then, other states have passed more stringent laws limiting hostile takeovers, and the U.S. Supreme Court has declined to take up the issue again.[8] Now that 39 states have enacted some form of antitakeover legislation, the de facto national policy on corporate takeovers has been set by the states?

A second state regulatory arena that raises the issue of interference with interstate commerce is product-liability laws. In its examination of the liability insurance crisis, the National Governors' Association (NGA) focused on the deleterious effects of inconsistent state product- liability laws.[10] The NGA testimony before the Congress notes that it is difficult for national manufacturers to be informed of, much less to comply with, the differing standards among the states. It also is difficult for manufacturers to assess risk in each of the different environments. Because NGA concluded that these difficulties impede interstate and foreign commerce, it called for the Congress to enact a federal uniform product-liability code.[11]

Actually, the governors' concerns about state regulatory policies go far beyond their worries about conflicting state product-liability laws. In their examination of the barriers to international economic competitiveness of the United States, the governors have advocated "the establishment of national rules and standards, by federal preemption of state and local authority if necessary, in a wide range of economically relevant policy fields, such as banking, insurance, telecommunications, transportation, product safety and liability, and environmental protection."[12]

Empirical Evidence on the Effects of Regulations on interstate Competition for Business

A few of the studies reviewed earlier in the context of interjurisdictional tax and service competition incorporated some measure of regulatory competition in their research.

In addition to measures of state and local tax burdens, the Price Waterhouse study of Oklahoma's business climate includes in its analysis two state regulations.[13] These regulations are laws regarding workers' compensation insurance and right-to-work laws.

Right-to-work laws prohibit contracts that make union membership a condition of employment. The implication is that unions in right-to-work states have less power than in states without these laws. Right-to-work laws have been passed by a number of states.

Workers' compensation is a state-regulated form of employee insurance, required of most employers in each state. The employer generally pays for this insurance by purchasing a policy from an insurance carrier. The costs vary by state because the states impose different requirements for coverage, eligibility, and benefit levels. Price Waterhouse adds the cost of workers' compensation to the cost of sales, property, and other taxes in its comparison of the various potential sites for business location.

The econometric evidence regarding the effects on business location of these and other state regulations is meager in comparison with the evidence presented in the previous chapter regarding the effects of differing state and local tax and expenditure levels. Several recent studies of the determinants of the distribution of business activity include no regulatory variables.[14] The studies that include regulatory variables show mixed results.

In a study that attempts to determine the cause of relatively rapid growth in the southern and southwestern regions of the United States in the 1960s, Robert Newman includes a variable representing enactment of right-to-work laws as a proxy for a favorable business climate.[15] Newman's data are for 13 industry groups by state for the periods 1957-63 and 1965-73. In nearly all of his regressions, he finds that the presence of right-to-work laws has a significantly positive effect on industry growth, which supports his working hypothesis. In other words, industry growth tends to be greater for states with right-to-work laws.

Neither Dennis Carlton nor Thomas Plaut and Joseph Pluta find such definitive results.[16] Carlton constructs a business-climate index from 16 different factors. The regulatory factors he includes are right-to-work laws, state minimum wage laws, state fair-employment practice codes, and statewide industrial noise-abatement laws. In none of his regressions did his proxy for a favorable business climate have a significant positive effect on industrial location; that is, industrial location was not associated with his measures of a favorable business climate. Plaut and Pluta construct a variable indicating the presence and activity of unions from several factors, including an indicator of right-to-work laws. Plaut and Pluta find that industry is strongly attracted to states with a low level of union activity; however, because their approach combines the effects of other factors along with the presence of right-to-work laws, it is not possible to determine the magnitude of the impact that right-to-work laws alone have on industrial location.[17]

Evaluating State and Local Regulatory Policies

In order to evaluate regulatory competition among state and local governments, it is first necessary to examine the results of their efforts at regulation. So far, the effects of only certain types of regulations have been examined.

Several studies have examined the effects of municipal zoning ordinances. All large cities in the United States except Houston have a zoning ordinance. The basic structure of such an ordinance is that a municipality is divided into mutually exclusive districts within which land use, height, bulk, and setback regulations are imposed. Generally, only one type of use is permitted per district. For example, certain districts are reserved for commercial use of particular types and others for different densities of residential development.

Several studies also have been done on the effects of zoning. The "new view" of the effects of municipal zoning is that zoning's primary effect is to restrict growth, thereby raising housing prices within municipalities and metropolitan areas." As William Fischel argues, the next problem is an evaluation of the relative value of the benefits and costs of these higher housing prices. For both empirical and theoretical reasons, Fischel argues that, in most cases, with respect to housing, the costs outweigh the benefits, implying that zoning ordinances, on the whole, are too restrictive.[19]

During the past 20 years, there has been a virtual revolution in business regulation by the federal government, with deregulation enacted, for example, in the airline, mail, cable television, and savings and loan industries. Some of the deregulatory initiatives have been successful, others have not. Because of the wide range of important regulations imposed by state and local governments, a similar rethinking of state and local regulatory policies should be considered, keeping in mind the opening statement of the 1989 *Economic Report of the President* that, "Government regulation can have a dramatic effect on economic growth and productivity."[20]

Competition for Economic Development

Because competition for economic development incorporates aspects of tax, service, and regulatory competition, we have saved that discussion for last. First, we will highlight some of the concerns regarding competition for economic development, then provide an overview of some of the most important incentives that state and local governments have adopted to maintain or improve their competitive positions. A discussion of the manner in which competition for economic development can be characterized as either a "zero sum" or "negative sum game" follows. Some of the most recent innovations in economic development make use of less obviously competitive strategies and may even turn economic development policies of competing jurisdictions into a "positive sum game." This section concludes with a discussion of several important trends.

Concerns Regarding Competition for Economic Development

Competition among states and localities to capture the footloose business firm or the potential business expansion in order to create or maintain jobs for the jurisdiction's constituents has been going on for at least the last 50 years. Dick Netzer dates the start of "smokestack chasing" to Mississippi's "Balance Agriculture with Industry" program, which was established in 1936.[21]

ACIR's last study of interjurisdictional competition was motivated by policymakers' concerns about such activity. As the 1981 study stated at the outset:

> There is a persistent concern that tax-based competition for people, capital, and jobs will reach the point where many state policymakers will feel

obliged to pursue a "beggar thy neighbor" strategy. . . . [This study inquires] whether federal intervention is needed because interstate competition for industry has reached a point that is demonstrably adverse to the economic health of the states and the nation.[22]

Recent examples that raise questions regarding the efficacy of interjurisdictional competition for economic development include the following:

In 1978, Volkswagen received almost $100 million in financial incentives when it decided to build a plant in New Scranton, Pennsylvania. Ten years later, Volkswagen closed what turned out to be an unprofitable plant.[23]

A recent study of the costs of the financial incentives used by states and localities to attract new auto plants concluded that the "incentive cost per job" ranged from $3,904 (for a Honda plant in Marysville, Ohio) to $108,333 (for a Toyota plant in Scott County, Kentucky).[24]

New York's use of the investment tax credit, one of the most popular economic development tax incentives, has been described as follows. The measure was adopted in 1969 without an estimate of the potential revenue loss, which turned out to amount to over $660 million by 1983. Until 1985, New York's investment tax credit, "which costs more than the budgets of most state agencies—received less review and analysis than did explicit spending programs that cost a million dollars or less."[25]

When Hoffman Estates, Illinois, was able to entice Sears Merchandising Group away from downtown Chicago with an incentive package of free land, worker retraining, infrastructure, and tax abatements worth $240 million, *U.S. News & World Report* called Chicago "the latest loser in the tax-incentive wars."[26] At least one public official has called state competition for economic development "obscene. . . . Free enterprise isn't free anymore, you've got to buy it."[27]

Despite the criticisms of state competition for economic development that have been raised by policymakers, journalists, and economic analysts, all indications are that the number of economic development incentives has been growing. The National Association of State Development Agencies (NASDA) estimates that the average state economic development agency budget grew from $2.1 million in 1970 to $19.7 million in 1988.[28]

Types of Economic Development Incentives

The number of different state and local economic development incentives currently employed is so great that a recent 50-state survey by NASDA that concentrated mainly on state financial incentives ran to almost 700 pages.[29] The wide array of economic development incentives can be divided into several major categories: direct financial incentives (e.g., grants, loans), special tax exemptions, special programs (e.g., technical and support services, research and development programs), aspects of the legal and regulatory climate, and combinations of incentives from these categories (e.g., enterprise zones).

Two recent inventories of economic development programs are useful to describe the major state financial incentives to promote economic development in general (Table 10) and to promote exports (Table 11).[30] According to NASDA, in 1986, 14 states had grant programs that supported economic development. One of those states, Alabama, has established an industrial development authority to make grants that will pay a portion of the site improvement costs for industrial firms. These grants are not made directly to industry, but to localities or industrial development boards, which presumably pass on the bulk of these benefits to particular firms. In 1985, Alabama issued 70 such grants for a total expenditure of $1.6 million.[31]

There are several mechanisms by which states and localities can enable businesses to obtain financing at a below-market interest rate. More than half of the states have direct loan programs. Many of these programs are established as revolving funds, and most require some proportion of the financing to be private.[32] Another third of the states provide loan guarantee programs. Both of these loan programs are especially attractive to small and medium-size businesses,

An important federally subsidized device is the ability to issue tax-exempt industrial development bonds (IDBs), used in 49 states in 1986. Because those who purchase such bonds do not have to pay federal income tax on the

Table 10
State Financial Incentives Used to Promote Economic Development

Program	Number of States
Direct Financial Incentives	
Grants	14
Loans	27
Loan guarantees	16
Industrial development bonds	49
Industrial development bond guarantees	9
Umbrella bonds	15
State-funded or state-chartered equity /venture capital corporations	8
Customized industrial training	42
Tax Exemptions, Deductions, Credits by Favored Activity	
Business inventory	35
Energy and fuel conservation measures	37
Goods in transit	42
Industrial fuels and raw materials	43
Industrial machinery and equipment	42
Pollution control equipment	40
Research and development	14
Tax Exemptions, Deductions, Credits by Type of Favored Treatment	
Investment tax credit	20
Job creation tax credit	17
Property tax abatement	31

Source: National Association of State Development Agencies, ***Directory of Incentives for Business Investment and Development in the United States: A State-by-state Guide,*** 2nd Edition (Washington, DC: The Urban Institute Press, 1986.)

Table 11
State Programs Promoting Exports

Program and Description	Number of States
Foreign trade offices Foreign offices run by the state to promote exports	**42**
Export finance Export credit or credit guarantees	**15**
Export product directories Publications about products made by in-state **firms** that **are** available for export	**38**
Counseling services Counseling on export procedures, sources of legal assistance	**45**
Trade seminars Seminars teaching **skills** needed ***to*** export (e.g., financing, licensing)	**49**
Trade leads Efforts to develop overseas sales leads and deliver them to appropriate companies	33
Foreign buyer matching Efforts to match local companies with visiting foreign buyers	**44**
Overseas agent/distributor identification Efforts to identify **overseas** agents and distributors for in-state businesses	**42**

Source: Corporation for Enterprise Development, ***The 1989 Development Report Card for the States*** (Washington, DC, 1989).

interest, state and local governments can issue the bonds at lower interest rates than otherwise would be possible. Due to rapid growth in the issuance of tax-exempt bonds, the federal government took action to limit their future volume in the Tar ***Reform Act*** of 1986 by putting industrial development bonds under a tighter state-by-state volume cap. However, the Congress extended the sunset on the industrial development bond program in the 1986 *Tax Reform* ***Act,*** and again in 1989 and 1990.[33]

Two related capital subsidy programs are industrial development bond guarantees, provided in nine states, and umbrella bond programs, offered in 15 states. North Dakota's Industrial Development Revenue Bond Guarantee program, for example, permits the state's economic development commission to guarantee the principal and interest on industrial development bonds issued for certain development projects in order to expand the market for placing such **bonds.**[34] Umbrella bonds combine the financing of several projects into a pooled debt issue. This device enables small businesses that would otherwise be ineligible for industrial development bond financing to have access to such below-market financing.

States also have provided capital subsidies to businesses in the form of equity investments. States either charter an agency or authorize private nonprofit organizations to make capital investments in particular types of business firms. For example, the Massachusetts Technology Development Corporation (MTDC) is an independent public agency chartered to provide capital to young, **high** technology f m s that are unable to **obtain** capital from conventional sources and that are likely to provide a significant number of jobs within the state. Since it began in 1976, the **MTDC has** invested over **$7** million in such **businesses.**[35]

States also provide subsidies for research and development and for training. One of the most popular of such programs is customized industrial training, which has been adopted by **42** states.

Tax incentives provide indirect financial support for business firms. Firms receive a reduction in the state and local taxes they would otherwise owe, generally because of firm expenditures on certain favored activities, such as pollution control equipment or research and development. Table 10 provides a summary of such incentives, by type of favored activity (e.g., pollution control equipment) and favored treatment (e.g., property tax **abatement).**[36]

It *is important* to note that the benefits of state and local tax incentives are shared between the business f m s and the federal treasury, creating a **sort** of reverse federal revenue sharing program. This results from the fact that state and local taxes are generally deductible in computing federal income **tax** liability: the greater the **tax** abatement incentives, the lower the firm's state and local tax liability, and thus the higher the taxes paid by the firm to the federal government.

The enterprise zone is another category of general economic development incentive program. Enterprise zones, which have been considered by the federal government for some time, are used by 22 states. The New Jersey Urban Enterprise Zone Program offers a wide range of incentives for zones designated in ten distressed communities. These incentives include major tax benefits: employee tax credits applicable to the state's franchise tax, sales tax exemptions for purchases of tangible personal property and for purchases of building materials and supplies used in business improvements, authorized reductions in sales tax rates for certain zones, and awards for employment of certain new employees. Other benefits include preferential treatment for state and local grant programs, potential exemption from certain regulations, and availability of employee training **programs.**[37]

We now turn to one of the newest arenas of state economic development activity—state efforts to promote exports of state products, foreign investment, and foreign tourism. Some 42 states maintain about 120 economic development offices in foreign countries to promote e x p o r t ~ Some of the other initiatives used to promote state exports to foreign countries include financing aid, publication of export product directories, counseling services, trade seminars, identification of trade leads, efforts to match in-state companies with potential foreign buyers, and efforts to identify overseas agents and distributors for in-state businesses (see Table 11).[39]

Evaluating State and Local Economic Development Efforts

The wide range of even the subset of total state and local economic development incentives surveyed above should warn the reader of the difficulty of conducting an overall evaluation of state and local economic development efforts. Ideally, each state or local government considering a particular economic development device should carry out its own benefit-cost analysis of the proposal because there is no substitute for analysis of the facts of a particular case. Nevertheless, we will attempt to summarize some of the conclusions of experts in the economic development field. First, we will look at some of the evidence that indicates that state and local competition for economic development generally constitutes a "zero sum" or "negative sum" game.

Economic Development as a Zero Sum or Negative Sum Game. A negative sum game is a game in which if I win, you lose (or vice versa.) Depending on the circumstances, economic development incentives may simply shift economic activity from one jurisdiction to another. When the governors of two states are pitted against each other in a battle to obtain a 6,000 employee manufacturing plant, the governors are most likely to be engaged in a zero sum game. From the national standpoint, their competition is a waste of resources, and because it takes resources to compete for the economic development, one can characterize the "game" as a "negative sum game."

Competition for economic development also can be characterized as a negative sum game when such competition results in business locations that are economically inefficient. Suppose that the costs of production for the hypothetical 6,000 employee manufacturing plant were $1 million per year lower in state A than in state B, and that all other production or marketing differences in the two potential locations were of negligible importance. State B might be able to craft an incentive package to lure the plant to its state, if the package were worth more than $1 million per year. However, from a societal point of view, the victory would result in a $1 million per year waste of resources—clearly a negative sum game.

Several experts conclude that state and local efforts to compete for industry and jobs constitute a zero sum or negative sum game. Dick Netzer reviews the theoretical and empirical evidence of state policies carried out specifically for economic development purposes and concludes:

> . . . economic development incentives are, for the most part, neither very good nor very bad from the standpoint of efficient resource allocation in the economy. With all the imperfections, the offering of incentives does not represent a fall from grace, but neither does competition in this form operate in ways that truly parallel the efficiency-creating operations of private competitive markets. Given the low cost-effectiveness of **most** [economic development instruments], there is little national impact, only a waste of local resources in most cases.[40]

A second level of evaluation, alluded to above, is whether economic development incentives are cost effective from the point of view of the jurisdiction employing them. In the example above, the governor of state B might prefer to help the country while helping his constituents, but he might be willing to settle for an economic development strategy that provided jobs for his constituents if the alternative was to do nothing.

As it turns out, it is very difficult to evaluate the Cost effectiveness of economic development incentives. A large part of the analysis is inherently defective because the basic data are probably subject to bias. If a firm receiving a tax break is asked about the probable number of jobs it will create in return for the tax incentive, it has every incentive to inflate the number, in the absence of a system that would hold the firm accountable several years down the road. Likewise, evaluation by economic development agencies should not be taken at face value because it will be in the interest of the agency to present success stories, not failures.

Economists often use regression analysis for empirical work, but data limitations prevent the methodology from being very useful in analyzing the effectiveness of economic development incentives. The problem with using this tool to test the effectiveness of economic development incentives is that there are too many types of programs to examine, with too many variations in their design, among the 50 states. Regression analysis is inherently limited in testing the effectiveness of such specific and detailed incentives among the state governments.[41]

One approach to examining the effectiveness of economic development incentives from a state or local, rather than from a national, view, is to do simulations of the costs and benefits to plausible hypothetical firms that enable the researcher to estimate the cost effectiveness of various incentives. Larry Ledebur and William Hamilton have attempted such an analysis of selected development incentives.[42] Ledebur and Hamilton compute the ratio of the cost to the government to the direct benefit received by the hypothetical firm. In order to be cost effective, the computed ratio has to be less than 1 (otherwise costs exceed benefits). The smaller the cost-benefit ratio, the better.

Table 12 presents the Ledebur-Hamilton results for a low-profit firm (or small business). From the standpoint of the state offering the incentive, only industrial development bonds and loan guarantees appear to be cost effective (have ratios less than 1). State benefits provided to a business firm can increase federal tax liability, though. This occurs for all incentive programs listed in Table 12, except for the industrial development bond program. Thus, when both the state and the federal government are taken into account, the only economic development incentive that remains cost effective is a loan guarantee program (and that program remains cost effective only if the default rate remains below 40 percent). Because of the costs imposed on federal taxpayers as a whole, when the federal impact is taken into account, the industrial development bond program changes from a device that appears to be cost effective (with a state score of 0.18) to the least cost-effective program considered (with a combined state-federal score of 2.19; that is. costs are more than double benefits.)[43]

There are several reasons why the Ledebur-Hamilton results are plausible. One can list numerous factors that are likely to reduce the benefits of economic development incentives or increase their costs:

Table 12
Estimated Cost-to-Benefit Ratios of Selected Economic Development Incentives

Incentive	Cost to Government/ Direct Benefit to Firm State	Federal	Combined
IDBs	0.18	2.01	2.19
Direct loan subsidy	1.47	–0.33	1.14
Loan guarantee	0.79	—	0.79
Subsidized equipment	2.36	–1.11	1.25
Subsidized land	1.58	–0.58	1.00
Subsidized plant	2.40	–1.40	1.00
Tax abatement	1.42	–0.42	1.00

Note: An incentive is cost effective if the ratio of the cost to government to the direct benefit to firm is less than one.

Assumptions: Hypothetical low-profit firms face a federal corporate income tax rate of 20% and an average state corporate income tax of 5%. States do not allow deduction of federal income taxes. Firms have a default rate of 22 percent.

Source: Larry C. Ledebur and William W. Hamilton, "The Failure of Tax Concessions as Economic Development Incentives," in Steven D. Gold, ed., *Reforming State Tax Systems* (Denver: National Conference of State Legislatures, December 1986), pp. 110-14.

1. As Ledebur and Hamilton note, the benefits of an incentive are reduced when the firm receiving the incentive has to pay higher federal income taxes as a result.
2. It is generally difficult to target the marginal firms. Whenever an economic development incentive is provided to a firm that would have located (or remained) in a community anyway, the benefits created are zero.
3. Any new industry attracted may increase public sector costs. Those costs may not have been taken into account in the decision to provide the economic development incentive.
4. Tax incentives may become capitalized into the value of the state or locality's property. That is, land prices may rise by enough to make up for much of the tax abatement provided.

Each of these points raises questions about the potential effectiveness of economic development incentives, even when considered from the point of view of the offering jurisdiction only.

Another issue is the equity consequences of selected tax abatements or economic development incentives. The question is how previously existing businesses in Hoffman Estates feel about the multi-million dollar package offered to the newcomer Sears. Generous economic development incentives do not necessarily make for a good business climate when existing business firms end up paying higher taxes than do newcomers.

There is no simple correction for this problem either. Suppose a local government extends its generous economic development package to any existing firm that seriously considers relocating to another community. This may sound like an improvement in equity, but it also produces an incentive for firms to consider moving out of the community.

It may be evident by now that a preponderance of the evidence and judgment regarding state and local competition for economic development is that such activity is generally not cost effective from the point of view of the offering government or the nation as a whole. In the next section, we turn to a discussion of some reasons why competition for economic development might be efficient and of economic development policies that are not intentionally competitive, and which may be wealth creating rather than wealth redistributing.

Economic Development as a Positive Sum Game. When can economic development incentives benefit both the offering jurisdiction and the nation as a whole? Alternatively, if economic development incentives cannot produce a positive sum game, can other economic development policies benefit both the individual jurisdiction and the nation?

Although the strong consensus of the academic community is that economic development incentives create a zero or negative sum game for the nation as a whole, and often work to the detriment of the jurisdiction providing such incentives as well, there are a few dissenting voices. Nonna Noto argues in favor of examining state and local government economic development polices within a dynamic rather than a static context.[44] She reminds us that local and regional economies go through boom and bust cycles, and that labor is often an immobile factor of production. Noto argues that members of a community are willing to make concessions to retain businesses in order to maintain their way of life. She argues further that in such a situation local economic development incentives maybe as efficient an adjustment mechanism, or more efficient, than declining property values and wages.

Donald Baum has formalized a similar argument in a set of economic models.[45] Under some assumptions, economic development incentives produce the result that most analysts agree on: tax subsidies to business reduce economic efficiency in the economy as a whole and transfer income from labor to owners of capital. However, if Baum considers a situation in which the community offering an economic development subsidy is experiencing unemployment, then tax subsidies to attract business may increase both local and national welfare.

Other analysts do not argue that state and local competition for economic development through the use of development incentives can potentially provide national benefits. They argue that there are other policies for promoting economic development, policies that can promote both local and national welfare.

Economists have long argued that government action taken in the face of "market failure" can improve social welfare. Matthew N. Murray reminds us that market failures that can be alleviated by judicious economic development policies exist because of spillover effects, such as in the case of education and technological development, and because of the existence of imperfect information, such as lack of knowledge regarding potential foreign markets.[46] Economic development policies that increase support for education or technological development, or that provide information crucial to business development can then benefit both the jurisdiction enacting these policies and the nation as a whole. Although the future trend is far from clear, there are some indications that more economic development policies of this type, rather than the zero or negative sum game type, are being adopted by states.

Recent Trends in Economic Development Programs

In January 1990, Governor Roy Romer of Colorado released a five-year economic development strategic plan, emphasizing five strategies, in this order:

Building a world-class education system for Coloradans;

Creating quality jobs through expanded business opportunities;

Strengthening the capacity of rural communities to become more competitive;

Protecting Colorado's unique environment; and

Building the necessary infrastructure to facilitate commerce.[47]

The plan contains 45 initiatives designed to carry out these five development strategies; only three of those key initiatives appear to follow the "old model" of providing economic development incentives to lure business into Colorado. Three of the strategies could be characterized as getting the state back to the basics: concentrating on education, infrastructure, and the environment.

Colorado's economic development plan exemplifies some of the more encouraging trends in state and local policies. In recent years, state and local governments have moved away from an emphasis on industrial recruiting and have broadened their concept of economic development to include concentration on basic state problems, such as education and infrastructure. There also has been more emphasis on using strategic plans to improve the quality of economic development programs.[48]

Another promising trend emerging in state and local economic development policies is a move to make economic development policies more accountable. Accountability has been a problem in economic development programs, especially in the case of tax abatements or negotiated tax reduction packages. Direct grants to business firms are subject to the appropriations process, which makes expenditures public and forces spending priorities to compete with each other. The accountability of tax incentives suffers because of their nature as "back door spending," which taxpayers tend not to view as costing resources.

Illinois, for example, has recently completed a comprehensive review of its state development programs, directed by the state's auditor general." Although it has limitations (e.g., it omits tax expenditures for economic development from consideration), the report raises issues that it would be useful to address in every state or locality with an active program for attracting or retaining industries that create jobs. The audit has provoked a heated debate about how much the state should spend per "job created."

Frequent suggestions for improving the accountability of state and local economic development programs include estimating and publishing data on tax revenue forgone due to economic development tax incentives, performing benefit-cost analyses of particular economic development devices, and imposing "clawback" provisions that require business firms to pay back some proportion of a tax rebate if "job-creation" falls substantially short of projections. Although it is tempting for some business firms, economic development officials, and politicians to resist such changes, only by creating accountability for economic development programs will taxpayers be assured of getting their money's worth.

Conclusion

This chapter concludes the review of arenas in which state and local governments compete. Regulatory policies could have significant effects on a state or local government's economic health. However, the regulatory arena has until now received much less attention than state and local fiscal competition or competition for economic development.

A wide range of financial incentives provided by state and local governments to stimulate economic development was reviewed. The bulk of expert opinion appears to be that the present uses of many economic development incentives (e.g., tax abatements) can be counterproductive from the standpoint of the offering government and the nation as a whole. Some of the newer approaches to state and local economic development that move beyond traditional industrial recruiting and the use of tax abatements may indicate that state and local economic development efforts will increasingly constitute a "positive sum game." These trends include an emphasis on the basics of state government (especially education), use of strategic plans to guide economic development efforts, and a move to make economic development programs more accountable.

In the next chapter, we turn to the question raised at the outset of this report: is interjurisdictional tax and policy competition good or bad for the federal system?

Notes

[1] Frances Stokes Berry, "State Regulation of Occupations and Professions," *The Book of the States, 1986-87 Edition* (Lexington, Kentucky: Council of State Governments, 1986). p. 379.

[2] Milo Geyelin and Vindu P. Goel, "Pennsylvania Legislators Gird to Battle over Bill that Could Become Stiffest Anti-Takeover Law," *Wall Street Journal*, December 20, 1989.

[3] Corporation for Enterprise Development, *The 1989 Development Report Card for the States* (Washington, DC, 1989); and Roger Vaughan, Robert Pollard, and Barbara Dyer, *The Wealth of Stares* (Washington. DC: Council of State Planning Agencies, 1984).

[4] Vaughan et al., *The Wealth of States*, p. 60.

[5] Geyelin and Goel, "Pennsylvania Legislators . . ."; Vindu P. Goel, "Pennsylvania's New Anti-Takeover Law Fuels Controversy, Faces Fight in Court," *Wall Street Journal*, April 30, 1990.

6 Lynn E. Browne and Eric S. Rosengren, "Should States Restrict Takeovers?" *New England Economic Review* (July/August 1987): 15.

7 CTS Corp. v. Dynamics Corp. of America, 107 S.Ct. 1637 (1987); David A. Vise and Steve Coll, "Investment Banks, Business at Odds on Takeover Laws: Preemption of States at Issue," *Washington Post*, September 27, 1987; Eric S. Rosengren, "State Restrictions of Hostile Takeovers," *Publius: The Journal of Federalism* 18 (Summer 1988): 67-79.

8 Stephen Wermiel, "Supreme Court Declines to Review Law in Wisconsin Curbing Hostile Takeovers," *Wall Street Journal,* November 7, 1989.

9 CBS Nightly News, January 16, 1990.

10 Testimony of Richard B. Geltman, Staff Director, Committee on Economic Development and Technological Innovation, National Governors' Association, before the Subcommittee on Consumers, Committee on Commerce, Science and Transportation, United States Senate, September 25, 1987.

11 An alternative, of course, would be for the states to adopt uniform product-liability laws, perhaps with the aid of the Uniform Law Commissioners. The problem with that approach, as the record of the Commissioners shows, is that it is difficult to get every state to adopt a particular uniform or model act. See, for example, Table 8.1, "Record of Passage of Uniform Acts," and Table 8.2, "Record of Passage of Model Acts," in John M. McCabe, "Uniform State Laws: 1984-85," in *The Book of the States, 1986-87 Edition* (Lexington, Kentucky: Council of State Governments, 1986), pp. 324-331.

12 John Kincaid, "Implications of Constituent Diplomacy for the European Communities," paper prepared for the Annual Conference of the International Association of Centers for Federal Studies and the Comparative Federalism and Federation Research Committee, College of Europe, Groupe Coudenberg, Bruges, Belgium, October 26-29, 1989.

13 Price Waterhouse, "An Evaluation of the Oklahoma Business Climate," July 10, 1985.

14 This includes L. Jay Helms, "The Effect of State and Local Taxes on Economic Growth A Time Series—Cross Section Approach," *Review of Economics and Statistics* 67 (November 1985): 574-582; Michael A. Wasylenko and Therese J. McGuire, "Jobs and Taxes: The Effect of Business Climate on States' Employment Growth Rates," *National Tar Journal* 38 (December 1985): 497-512; and James A. Papke and Leslie E. Papke, "Measuring Differential State-Local Tax Liabilities and Their Implications for Business Investment Location," *National Tar Journal* 39 (September 1986): 357-366.

15 Robert J. Newman, "Industry Migration and Growth in the South," *The Review of Economics and Statistics* (February 1983): 76-86.

16 Dennis W. Carlton, "Why Do New Firms Locate Where They Do: An Econometric Model," in William G. Wheaton, ed., *Interregional Movements and Regional Growth,* COUPE Papers on Public Economics, (Washington, DC: The Urban Institute), pp. 13-50; and Thomas R. Plaut and Joseph E. Pluta, "Business Climate, Taxes and Expenditures, and State Industrial Growth in the United States," *Southern Economic Journal* 51 (July 1983): 99-119.

17 Plaut and Pluta use a principal components index to measure the presence and activity of unions.

18 Three of the most prolific authors in this area are Robert Ellickson, William Fischel, and Robert Nelson. The "new view" was first argued persuasively by Robert H. Nelson in *Zoning and Property Rights* (Cambridge, Massachusetts: MIT Press, 1977), and then by William Fischel in several articles and in his book *The Economics of Zoning Laws* (Baltimore: Johns Hopkins University Press, 1985).

19 Fischel, *The Economics of Zoning Laws,* p. 249. For an example of a benefit-cost analysis of zoning in one geographic area, see George E. Peterson, "The Influence of Zoning Regulations on Land and Housing Prices," Urban Institute Working Paper, July 1974.

20 Chapter 5, "Rethinking Regulation," *Economic Report of the President,* 1989, p. 187.

21 Dick Netzer, 'An Evaluation of Interjurisdictional Competition through Economic Development Incentives," in Daphne A. Kenyon and John Kincaid, eds., *Competition among States and Local Governments: Efficiency and Equity in American Federalism* (Washington, DC: The Urban Institute Press, 1991).

22 U.S. Advisory Commission on Intergovernmental Relations, *Interstate Tax Competition* (Washington, DC, 1981). p. 1.

23 Paul Glastris, "Holdup in the Windy City," *U.S. News & World Report,* July 17, 1989, p. 41.

24 From Douglas P. Woodward, *The New Competitors.* as quoted in Georgina Fiordalisi, "Did Kentucky Pay Too Much for Toyota Plant?" *City & State.* June 19, 1989, p. 13.

25 Richard D. Pomp, "State Tax Expenditure Budgets—And Beyond," in Steven D. Gold, ed., *The Unfinished Agenda for Tar Reform* (Denver: National Conference of State Legislatures, 1988), p. 66.

26 Glastris, "Holdup in the Windy City," p. 40.

27 Governor George A. Sinner of North Dakota, at meeting of the U.S. Advisory Commission on Intergovernmental Relations, September 29, 1989.

28 NASDA Expenditure and Salary Survey.

29 National Association of State Development Agencies. *Directory of Incentives for Business Investment and Development in the United States.* 2nd Edition (Washington, DC: The Urban Institute Press, 1986).

30 In a recent issue of *State Policy Reports* (November 1989, pp. 22-23), Hal Hovey lists and describes several recent inventories of economic development programs:

1) National Association of State Development Agencies, *Directory of Incentives for Business Investment and Development in the States: A State-by-State Guide.* 2nd Edition (Washington, DC The Urban Institute Press, 1986), 687 pages.
2) Northeast-Midwest Institute, *The Guide to State and Federal Resources for Economic Development* (Washington, DC, 1988), 394 pages.
3) Council of State Governments, *The States and Business Incentives: An Inventory of Tar and Financial Incentive Programs* (Lexington, Kentucky: Council of State Governments, 1989), 113 pages.
4) National Council for Urban Economic Development, A *Salute to Imaginative Economic Development Programs,* 123 pages. This report highlights 45, mostly local, innovative economic development programs.
5) Conway Data, *Site Selection Handbook* (Norcross, Georgia, periodically). This publication surveys 225 localities in addition to the 50 states.

31 NASDA, *Directory of Incentives,* p. 36.

32 Ibid., p. 5.

33 See also U.S. Advisory Commission on Intergovernmental Relations, *The Volume Cap on Tax-Exempt Private-Activity Bonds: State and Local Experience in 1989* (Washington, DC, 1990).

34 NASDA, *Directory of Incentives,* p. 484.

35 Ibid., p. 288-289.

[36] The items in the table are not meant to be comprehensive. For example, exemptions from sales and use taxes are not listed separately "by type of favored treatment," but are included in the tax exemptions "by favored activity." Furthermore, there is some overlap between the two types of tax exemptions. For example, Indiana provides an exemption from property taxation for air and water pollution control facilities, which may be counted under both the "property tax abatement" and "pollution control equipment" headings.

[37] NASDA, ***Directory of Incentives,*** pp. 429-430.

[38] Corporation for Enterprise Development, ***The 1989 Development*** *Report* ***Card for the States,*** p. 93. See also John Kincaid, "State Offices in Europe," ***Comparative State Politics Newsletter 6*** (August 1985): **22-28.**

[39] See also U.S. Advisory Commission on Intergovernmental Relations, ***State and*** *Local* ***Governments in the International Arena*** (Washington, DC, 1991).

[40] Netzer, 'An Evaluation of Interjurisdictional Competition."

[41] In econometric terms, there are not sufficient degrees of freedom or a sufficient number of observations to be able to test the effectiveness **of** the great number of economic development devices among the states. For more on this topic, see **Dick** Netzer, "State Tax Policy and Economic Development: What Should Governors Do When Economists Tell Them Nothing **Works?"** ***New York Affairs*** 9 (1986): 19-36.

[42] Larry C. Ledebur and William W. Hamilton, "The Failure of Tax Concessions **as** Economic Development Incentives," in Steven D. Gold, *Reforming* ***State Tau Systems*** (Denver: National Conference of State Legislatures, 1988), p. 113.

[43] Ledebur and Hamilton explicitly decline *to* use a multiplier to take into account the indirect benefits that would flow to other businesses in the community. In their experience, adding indirect benefits seldom turns a program that is rated not cost effective into a cost-effective one.

[44] **Nonna A. Noto**, "Trying to Understand the Economic Development Official's Dilemma," in Daphne **A.** Kenyon and John Kincaid, eds., ***Competition among States and*** *Local* ***Governments: Efficiency and Equity in American Federalism*** (Washington, D C The Urban Institute Press, 1991).

[45] **Donald N**. Baum, "The Economic Effects of State and Local Business Incentives," ***Land Economics*** 63 (November 1987).

[46] **Matthew** N. Murray, "The Incentives Game: Win, Lose or Draw?" in National Tax Association-Tax Institute of America, ***1989 Proceedings*** of ***the Eighty-Second Annual Conference (Co-*** lumbus, Ohio, 1990), pp. **268-274.**

[47] ***The 1995 Report: The Draft Five-Year Economic Development Strategic Plan,*** Governor Roy Romer, presented to the 1990 General Assembly, prepared by the **Office** of State Planning and Budget, Denver, Colorado.

[48] For an elaboration on this theme, see R. Scott Fosler, "Promising Approaches to State Economic Development," in National Tax Association-Tax Institute of America, ***1988 Proceedings of the Eighty-First Annual Conference,*** (Columbus, Ohio, 1989), pp. 45-52.

[49] ***Management and Program Audit of the Department of Commerce and Community Affairs Economic Development*** *Programs,* Illinois Auditor General, Springfield, reviewed in ***State Policy Reports*** **7** (November 1989): 19-22.

Chapter 6

Is Interjurisdictional Competition Good or Bad for the Federal System?

This chapter summarizes the results of the previous chapters and reviews additional literature in order to address the overall question of whether competition among state and local governments is good or bad for the federal system.

Not surprisingly, one cannot characterize interjurisdictional competition as simply as this question implies. In some instances, competition among governments has beneficial results; in other circumstances, competition has harmful results. One aim of this chapter is to distinguish between those sets of circumstances.

An evaluation of the effects of competition among governments depends on the criteria chosen and the relative emphasis placed on each criterion. An evaluation of interjurisdictional competition also depends crucially on the alternatives—for example, consolidated governments, federal regulation, or compacts among state and local governments.

Certain theoretical and empirical studies are reviewed that will be helpful in the evaluation—first. the evidence regarding government behavior in the absence of interjurisdictional competition; then, empirical studies that compare the fiscal behavior of state and local governments with differing degrees of potential competition. Theoretical studies that attempt to determine the effects of interjurisdictional competition under differing governmental institutions also are reviewed.

The conclusion summarizes the findings of the report regarding the beneficial and harmful effects of interjurisdictional competition. In a number of ways, the consensus regarding interjurisdictional competition has changed in recent years. A decade or two ago, analysts appeared to be uniformly critical of interjurisdictional competition. Today, there is generally a more favorable assessment of at least certain aspects of competition among governments. Although recent research has left some of the standard criticisms against interjurisdictional competition intact, it also has provided evidence that under certain circumstances interjurisdictional competition can have beneficial results.

Criteria for Evaluation

The criteria chosen for evaluating interjurisdictional competition will be equity and efficiency, by which economists typically evaluate any public policy. Because this chapter's key question is whether interjurisdictional competition is good or bad ***for the federal system***, this raises the issue of whether the usual economists' criteria are relevant in this particular context. Should the same criteria be used when judging what is good or bad for the federal system as economists use when they are judging what is good or bad for the individual agent in the economy? Indeed, the use of the same criteria is appropriate because the federal system of government is meant to maximize the welfare of the individual citizen, as the economic system is meant to maximize the welfare of the individual economic agent.[1]

Equity

The criterion of equity can be evaluated according to two alternative principles: ability to pay and benefit. In practice, government policies are evaluated by some mixture of the two, with the relative reliance on each varying over time.

An ability-to-pay approach argues that individuals with equal abilities to pay should pay equal taxes (horizontal equity) and individuals with greater abilities to pay taxes should pay more than individuals with lesser abilities to pay taxes (vertical equity.) In evaluating the horizontal equity of an income tax, for example, one would ask whether two individuals with equal incomes are subject to the Same tax liability. In the context of examining the effects of interjurisdictional competition, one relevant question is whether two otherwise identical individuals who live in two different states are subject to the same net fiscal burden for the same services. A second relevant question is whether otherwise identical individuals or business firms within a jurisdiction are subject to the same fiscal arrangements.

There is a wide range of opinion regarding what constitutes a vertically equitable tax system. Some individuals support extensive use of progressive taxation and expenditure policies that favor the poor; others reject progressive taxation'and support only those expenditure policies that provide a minimal "safety net" for the poor. Depending on the individual's value system, one might or might not conclude that interjurisdictional competition had harmful effects if it reduced the progressivity of the fiscal policies of governments in the federal system.

The second framework for judging equity is the benefit principle. In the context of tax policy, the benefit principle states that individuals should pay taxes in proportion to the benefits they receive from government services. When applied to fiscal policies in a federal system, the benefit principle would give high marks to a system that taxed individuals and businesses in proportion to the benefits these entities received from state or local governments. Furthermore, within the benefit principle framework, there would be no automatic presumption in support of progressive tax policies or expenditure policies favoring the poor.

Efficiency

An efficient governmental system has two key components: provision of the optimal quantity and mix of government services, and use of the least costly input mix and technology to produce that mix of government services. When both components of efficiency are satisfied, then Pareto optimality is achieved. Pareto optimality is a situation in which it is impossible to make one individual better off without making another worse off. If there were some waste of resources in the economy, by definition there would not be a Pareto optimum because it would be possible to stop wasting resources and make at least one individual better off without making any individual worse off.

Most noneconomists find the second aspect of efficiency the most understandable: the production of government services at minimum *cost.* At least one study suggests that nonprofit firms and governments are less likely to achieve least-cost production than are profit-making firms.[2]

The first component of efficiency, the production of the optimal quantity and mix of government services, involves controversial issues regarding the appropriate size of the government sector and the appropriate level of spending on particular services. Citizens in any state or local jurisdiction will prefer different amounts of government spending. Because all citizens in a given jurisdiction tend to receive approximately the same level of government services, inevitably, some people will think that government spending is excessive and others will think that it is inadequate. According to the economist's analytical framework, however, there is a single optimal level of spending—the level at which the sum of the additional benefits generated for all citizens is equal to the marginal *cost* of production? In some cases, this will be the level of government spending demanded by the median voter of the jurisdiction, that is, the level at which half of the citizens would prefer more spending and half would prefer less spending.[4]

Now that the criteria of equity and efficiency have been defined, it is important to note that, as in nearly all attempts to maximize more than one criterion, trade-offs will have to be made. Adoption of a particular policy change may increase equity and decrease efficiency, or vice versa. In those cases, one cannot judge whether the policy is an improvement unless one decides to weight equity or efficiency more heavily.

This study will not attempt to place relative weights on these two criteria. It is important to note, however, that the trade-off between the achievement of equity and efficiency is critical in evaluating the effects of interjurisdictional competition. Part of the reason for the currently more benign evaluation of interjurisdictional competition appears to be the changed political climate in which somewhat more value is placed on efficiency than was the case two decades ago.

Alternatives to Competition

The alternatives to competition are not usually addressed adequately in evaluating competition among state and local governments. Evaluation is likely to produce different results depending on whether the alternative to competition is cooperation among states or imposition of federal mandates, for example, and, for local governments, whether the relevant alternative is consolidation of local governments or equalizing grants from the federal or state governments.

In some cases, analysts may posit an alternative to interjurisdictional competition that is unrealistic. For example, proposing that state and local governments simply cooperate rather than compete is unrealistic. First, it is very difficult for a large group of actors to make and enforce an anticompetitive compact. The reason is that a diverse group is likely to have competing as well as common goals. The temporary success of the OPEC cartel in limiting oil production in order to raise its joint profits is a case in point.

Second, even if the majority of state and local governments could agree to prohibit one type of competition, it is likely that another type would take its place. Suppose state governments agreed not to use special tax concessions in the future as an economic development device. What would prevent the relatively low-tax states from taking advantage of their low-tax status to attract footloose business firms? Or, given the multiplicity of economic development devices, what would keep states from turning their emphasis to enterprise zones. grants, loans, customized industrial training, or any number of other devices to compete for business firms?'

John Kincaid has suggested a need to distinguish between mediated and unmediated interjurisdictional competition. He defines mediated competition as that which occurs through the use of third-party government institutions, such as interstate competition for federal dollars in the Congress. Unmediated competition is the kind of "free-market" competition analyzed in this report. Kincaid argues that there often may be an inverse relationship between mediated and unmediated competition. In particular, if severe restrictions were placed on unmediated interstate tax and policy competition, then mediated competition would likely increase as states would shift their competitive energies to the federal government in search of federal aid and other benefits. Thus, attempts to induce cooperation may displace competition to the Congress, where the outcomes of interjurisdictional competition are not necessarily more efficient or equitable than unmediated interjurisdictional *competition.*[6]

Literature Review

There is very little literature that evaluates the overall effects of interjurisdictional competition. This is not surprising, given the complexity of the question. Competition among states and local governments would need to be examined, as well as the dimensions along which governments compete (e.g., fiscal vs. regulatory). It also would be advisable to take account of *intrajurisdictional* competition because competitive elections within jurisdictions may perform some of the same functions as interjurisdictional competition. That is, competition among local political parties and candidates may help make local government more responsive to voters just as the threat of exit tends to make local government responsive to its citizens' concerns. Furthermore, intergovernmental relationships among the federal, state, and local governments can have important effects on interjurisdictional competition. Finally, the effects of interjurisdictional competition on both efficiency and equity should be taken into account.

Although there is not much explicit evaluation of the effects of interjurisdictional competition, there is a great deal of literature relevant to such an evaluation.

The next section begins by considering studies of government behavior in the absence of interjurisdictional competition. If governments act so as to maximize the welfare of their citizens in the absence of interjurisdictional competition, then the opportunity for such competition to provide benefits for the federal system will be reduced significantly. Next, the growing literature on the effects of local government fragmentation and of restrictions on the formation of new local governments on the performance of those governments will be reviewed. Some of the theoretical literature that attempts to illuminate the essential nature of interjurisdictional competition will also be examined.

Government Behavior in the Absence of Interjurisdictional Competition

If governments are not automatically responsive to voter wishes, then competition among governments can be a potentially important force for encouraging greater responsiveness. As described in Chapter 2, governments may respond to their citizens because of pressure from citizen "voice" or "exit," Citizens may influence the actions of their representatives by complaining at public hearings, signing petitions, voting for different candidates, and so on (the voice mechanism). Alternatively, citizens may "vote with their feet," that is, move to a nearby community to obtain the public service-tax package they prefer (the exit mechanism). To the extent that the voice mechanism does not make state and local governments sufficiently responsive to their constituents, the exit mechanism may play an important role.

In recent years, both the growth of the public choice school and the trend toward fiscal restraint have contributed to the idea that interjurisdictional competition may be helpful in making governments more responsive to their citizens. The essence of public choice is the application of economic models to the understanding of politics. One of the most important principles of the public choice school is that the achievement of successful public policy requires an understanding not only of the circumstances under which the free market does and does not function effectively but also of how effectively governments function.

Economists working in the public choice field have developed influential models of "government failure," or models that indicate that government policies may not produce optimal results for their constituents. One of the best known models is William Niskanen's theory that the goal of a bureaucrat is to maximize the size of his or her budget.' When this assumption holds, the normal tendency of government will be to overspend. Geoffrey Brennan and James Buchanan have developed a similar theory of government behavior that has become known as the Leviathan Hypothesis.*Their theory is that government naturally seeks to maximize revenues and exploit citizens through excessive rates of taxation.

The empirical literature that examines the behavior of state and local governments contains some studies that support a public choice view of government behavior, and some studies that do not support such a view.

The level of government spending is probably the characteristic of government behavior that has received the most attention, as well as generated the most controversy. As noted in this chapter, in some cases, the optimal level of government spending is that preferred by the median voter. In other words, even though no government can satisfy the diverse tastes of all its citizens, under some circumstances, the optimal level of government spending is the level that half the citizens say is excessive and the other half view as inadequate.

Many studies of state and local government fiscal decisions have relied on a "median voter" model. According to that approach, political competition within jurisdictions forces public officials to choose policies that conform to the preferences of the median voter. Thomas Borcherding and Robert Deacon were among the first to obtain promising empirical results from this model? To the extent that the median voter model is successful in describing state or local government fiscal decisionmaking, concern for government failure is lessened.

Despite frequent use of the median voter model in empirical work on state and local governments, analysts of local government fiscal decisionmaking have some important reservations about the model's applicability. One reason for these reservations stems from the 1970s tax revolt. If state and local governments had been responsive to the median voter, it is argued, voters would not have supported tax and expenditure limitations. In direct contradiction to the median voter model, there was nearly a decade of active consideration and passage of mechanisms to force fiscal discipline on state and local governments.[10]

Another flaw in the median voter model is its inability to account for the so-called "flypaper effect."" The flypaper effect refers to the fact that lump-sum grants to state and local governments increase public expenditure by more than an equivalent increase in the income of the jurisdiction's residents. As Ronald Fisher notes, "The results of a number of studies show that although $1 of increased income is expected to increase subnational government expenditure by about $.05 to $.10, $1 in lump-sum grant appears to increase expenditure by $.25 to $.50."[12] The flypaper effect got its name from the tendency of money to "stick where it hits." If a government were truly responsive to voter interests, some argue, it should increase spending on government services by the same amount whether the increase in income was received directly by the voters or by the government.

Alternative models of government behavior that assume the natural tendency of state and local governments is to overspend have received some support. One of the best known efforts is the work on an "agenda setting" model by Thomas Romer and Howard Rosenthal.[13] According to their model, the objective of government bureaucrats, in this case school district boards, is to maximize the size of their budgets. Because they set the agenda for school referenda, they present voters with a choice between too much or too little spending. Faced with this unattractive choice, voters choose the lesser of two evils and approve a level of spending that exceeds the level preferred by the median voter. Romer and Rosenthal have found support for their model in studies of school districts in Oregon and in New York.

How Government Behavior Changes with Differing Degrees of Potential Interjurisdictional Competition

In Chapter 2, it was noted that economists typically link the performance of an industry to the structure of that industry. In general, economists find that the more competitive the industry, the better the market performance (i.e., the lower the prices, the closer output is to the optimal level, and the lower the average costs of production.) The government analogy implied by the Tiebout model is that the more competitive the government structure, the more responsive state and local governments should be to the desires of citizens.

The discussion in Chapter 2 also hypothesized that competition among governments was likely to be greater the greater the number of governments competing with each other. Thus, it was asserted that competition should be greater in a metropolitan area with 50 suburbs than in a metropolitan area with only five suburbs. Fischel's measure of competition among local governments, based on four-firm concentration ratios commonly used in the field of industrial organization, was also described.

A small literature has begun to use similar measures of competition among local governments to test whether potential competition tends to reduce government spending. Figure 3 summarizes the results of six of these studies.[14] As Wallace Oates notes in his recent review article, although there are some contradictions among the findings, there also are some consistencies. It is particularly interesting that the balance of evidence supports a negative relationship between the potential for interjurisdictional competition (which Oates refers to as fragmentation) and the level of public spending. This is the opposite of the result that Oates found in his last empirical study of the matter.[15]

Of the six empirical studies summarized in Figure 3, statistically significant results indicating that a competitive interjurisdictional structure tends to have a restraining effect on the size of the public sector are found for three studies examining competition within a county or within an SMSA (e.g., DiLorenzo, Eberts and Gronberg, and Zax). A further finding is that the potential for competition among local general governments appears to have a restraining effect on government spending, but potential competition among special district governments appears to increase total government spending. This latter result is not surprising when viewed within the context of the Tiebout model. Citizens may use the exit mechanism when dissatisfied with the performance of local general governments, but will be much less likely to relocate because of dissatisfaction with the level of a single service. In addition, local general governments sometimes support the creation of special districts in order to get around tax or spending limitations.

One of the six studies produces results contradicting the Leviathan hypothesis: Forbes and Zampelli find a positive and statistically significant relationship between the number of counties within an SMSA and the size of the local public sector. According to Forbes and Zampelli, the greater the number of counties in an SMSA, the larger the size of the public sector. The number of counties within an SMSA is their measure of potential intercounty competition.[16] Two other studies find no statistically significant effect of interlocal competition within a state on total government spending. As Oates argues, this is not surprising because "voting with one's feet" across an entire state is likely to be of limited importance.[17]

Before exploring the next type of empirical study, a note is in order regarding the relationship between the level of local government spending and the degree of potential competition among some group of local governments. Even though most of the current evidence indicates a negative relationship between level of government spending and degree of potential interjurisdictional competition—that is, spending tends to go down as potential competition goes up—no current study has established that government spending is generally pushed to a level that is beyond the optimum. Thus, even finding a negative relationship between level of government spending and degree of potential interjurisdictional competition provides less than complete support for the Leviathan hypothesis.

A related literature examines the effects on the level of government spending of barriers to entry by local gov-

Figure **3**
Literature Review:
Effects of Interjurisdictional Competition on Level of Government Spending

Study	Type of Interjurisdictional Competition	Measure of Interjurisdictional Competition	Results
Dilorenzo (1983)	Intracounty	*2* concentration ratios: 1) Percentage of total government expenditures in county areas accounted for by **4** largest jurisdictions 2) Percentage of total own-tax revenues raised by **4** jurisdictions with highest own-tax revenues	**Mixed** results, but on the whole a positive correlation between concentration and cost **of** government services
Oates (1985)	Interlocal competition within a state	Number of local governments within a state	Insignificant negative relationship between total state-local receipts as a fraction of personal income and number of governments in a state
Nelson (1987)	Interlocal competition, competition among local governments	Average population **per** local government unit; average population **per** local general government	No statistically significant results for equation involving all local governments; **for** local general governments, only an inverse relationship between public sector size and population per government unit
Eberts & Gronberg (1988)	Interlocal competition (general governments or special districts) within SMSAs, counties and states	Total number of **local** government units, number of local governments normalized by population size, number of local governments normalized by land area	Increased fragmentation of local general governments within SMSAs or counties decreases government expenditure **as** a percentage **of** personal income; the opposite holds for **special** districts; within states, no statistically significant **results**
Forbes & Zampelli (1989)	Intercounty competition	Number of counties in an SMSA	Number of counties in an SMSA **has** a positive and statistically significant impact on the size of the public sector
Zax (1989)	Intracounty competition among local governments	Governments **per** square mile, both general and single purpose	Total own-source revenue of all governments **as** share of county personal income negatively related to general governments **per** square mile, but positively related to special district governments **per square** mile

Source: Compiled by author

ernments and of local government ability to annex unincorporated land.[18] The working hypotheses are that the ability to annex land should increase a local government's fiscal power, and thus tend to increase the level of local government spending, and that the greater the barriers to entry of new local governments, the higher the level of government spending. *An* example of a barrier to entry is the existence of Local Agency Formation Commissions in most California counties that have the power to reject the proposed incorporation of a new city in an unincorporated area. This empirical literature is inspired by economic analysis of market functioning, in which economists have found that barriers to entry and greater market power tend to increase price levels and to reduce efficiency in production.

A recent study by Rodolfo Gonzalez and Stephen Mehay examines these hypotheses for 24 governments in southern and western states.[19] Gonzalez and Mehay try to distinguish between states that have significant legal barriers to local incorporation and states that do not. They use information on the legal petition, referendum, and majority voting requirements for municipal incorporation to construct the barrier-to-entry variable.[20] Gonzalez and Mehay use the ratio of population annexed to total population growth of the city during the previous decade to measure the gain in a municipality's fiscal power through annexation.

Gonzalez and Mehay find a statistically significant positive relationship between higher annexation rates and greater barriers to entry and the level of government spending; that is, spending tends to be higher where there are more annexations and greater barriers to entry. They find a significant negative relationship between the ratio of the number of municipalities in the county to the land area and the level of public spending; that is, there tends to be lower spending where there are more municipalities.

Direct Assessments of the Effects of Interjurisdictional Competition

A separate body of theoretical literature attempts to assess the virtues and shortcomings of interjurisdictional competition. Some of the papers create rigorous mathematical models; others provide a broader but less rigorous analysis of the tendencies of interjurisdictional competition.

Albert Breton has been developing a nonmathematical theory of competitive federalism over the past few years. Although he directs his attention to Canada, much of his discussion is applicable to federalism in the United States. At the core of his theory is a notion of entrepreneurial competition among governments. Although Breton's approach uses economic analysis of market competition as a model, his theory is not based on neoclassical economics but on the classical economics of Adam Smith and the theories of economic development of Joseph Schumpeter.

Breton's assessment of the effects of interjurisdictional competition begins with the market analogy:

> Markets, when they are well structured and competitive, do a good job over the longer term in allocating resources in ways that maximize the well being of the population. . . . What is less accepted, but an idea in which I nonetheless believe just as strongly, is that governments, when they are well structured and competitive, do just as good a job as markets, and like them over the longer term, allocate resources in ways that maximize the well-being of people.[21]

John Shannon argues that at any time the forces of interjurisdictional competition limit the extent to which a state can levy taxes in excess of its competitor states or can skimp on public services.[22] He argues that, despite its shortcomings vis-a-vis treatment of the poorer states, interjurisdictional competition provides a valuable service in regulating the federal system and that:

> The interests of our federal system are well served by leaving this delicate and critical task of setting the outer limits of intergovernmental diversity where it now resides . . . because the light and "invisible hands" of tax and public service competition are clearly preferable to the heavy and visible hand of Washington.[23]

Other efforts to evaluate the effects of interjurisdictional competition work within formal economic models. Two papers by Wallace Oates and Robert Schwab will be summarized briefly here. In the first paper, entitled "Economic Competition among Jurisdictions: Efficiency Enhancing or Distortion Inducing?" Oates and Schwab build a model that has a number of jurisdictions, with individuals living and working in the same jurisdiction.[24] The role of government is to set the tax level and to regulate the quality of the environment. Capital is mobile between jurisdictions, but individuals are not. Oates and Schwab experiment with different specifications of their model to determine the conditions under which competition among governments is efficient, in the sense that it would be impossible to make one consumer better off without making another worse off.

Oates and Schwab find that under one specification competition among jurisdictions produces an efficient outcome, but under other specifications competition is inefficient. Specifically, when jurisdictions are constrained to tax capital, competition will lead to a socially excessive level of pollution. They also find that when community politicians are budget-maximizers, competition among communities leads to an inefficient outcome.

In a later paper, "The Allocative and Distributive Implications of Local Fiscal Competition," Oates and Schwab build a variant of their first model to examine both efficiency and equity aspects of interjurisdictional competition.[25] Again, they assume that capital, not labor, is mobile among jurisdictions. Jurisdictions compete for the mobile capital stock by lowering taxes and providing public services, such as police and fire protection, that are needed by business firms.

Oates and Schwab find that interjurisdictional competition is efficient; that is, no one could be made better off without someone else being made worse off. Furthermore, interjurisdictional competition forces all local taxes to become benefit taxes. Individuals and businesses pay taxes equal to the benefits they receive from government services. No redistribution from business to individuals is possible. Whether this is good or bad, Oates and Schwab argue, depends crucially on whether the federal government is performing adequately in its redistributive role. If the federal government is not fulfilling that role, they argue, some limits on interjurisdictional competition maybe required to enable state and local governments to accomplish some part of the redistributive function.[26]

Therese McGuire examines the effects of interjurisdictional competition by building two alternative models, one meant to be most applicable to competition among local governments, which she labels a 'Tiebout model," and one meant to be most applicable to competition among states, which she labels a "destructive competition model."[27]

The effects of interjurisdictional competition that McGuire derives from her Tiebout model corroborate the conclusions of the second Oates-Schwab model. Interjurisdictional competition is beneficial because it produces efficiency: the best mix of government goods and services is produced at the lowest cost. As in the second Oates and Schwab model, the taxes levied by local governments are benefit taxes.

In McGuire's destructive competition model, individuals within states want to redistribute income from high-income to low-income individuals, and they levy ability-to-pay taxes in order to accomplish this. She argues that this model is more applicable to state governments than is her Tiebout model because of the redistributive nature of a significant proportion of state government services, and the fact that state taxes are more nearly based on ability to pay than are the property taxes that are the mainstay of local government finance.

In the destructive competition model, because high-income citizens have an incentive to relocate from jurisdictions levying relatively progressive taxes, the intended redistribution of income is frustrated. In equilibrium, the best mix of government goods and services is not provided. Specifically, state citizens are unable to achieve the degree of redistribution of income they desire. McGuire goes on to discuss alternative federal policies that could mitigate the results of destructive interstate competition, such as federal grants-in-aid or federal restrictions on state tax structures.

The papers by Oates and Schwab, and McGuire constitute a tiny fraction of the theoretical literature that builds on Tiebout's original paper to assess the efficiency properties of interjurisdictional competition.[28] Most of this literature attempts to determine alternative sets of conditions under which the output of government goods and services in a competitive governmental market will constitute a Pareto optimum (i.e., it is not possible to make one person better off without making someone else worse off).

One major theme of this literature is that the conditions under which a competitive governmental structure will lead to a Pareto optimum are considerably more stringent than the conditions necessary for achieving a Pareto optimum in the private market. In order to achieve a Pareto optimum in the governmental market, there must be an optimal number of communities, an optimal allocation of individuals among the communities, and an optimal level of spending on government goods and services within each community. There are many possible reasons that may prevent simultaneous achievement of these three necessary conditions.

This literature will not be reviewed further here because of its complexity and its limited policy relevance. In essence, most of the literature compares the efficiency properties of interjurisdictional competition with the efficiency properties of the standard model of perfect competition in the market economy. It does not examine the properties of interjurisdictional competition relative to alternative institutional structures for state and local governments, which would be more relevant to this study. As noted earlier, the question of whether interjurisdictional competition is good or bad for the federal system cannot be answered without postulating a reasonable alternative to interjurisdictional competition.

Conclusion

The literature reviewed in this chapter, as well as in previous chapters, will now be brought to bear on the central question of this report: is interjurisdictional competition good or bad for the federal system? Some of this study's findings regarding the effects of interjurisdictional competition are different from the consensus of a decade or two ago, but in other respects, recent research has reaffirmed long-standing conclusions about interjurisdictional competition.

Current research confirms the tendency for interjurisdictional competition to reduce reliance on ability-to-pay taxes. This was shown most clearly in the Oates and Schwab model described earlier in this chapter. In equilibrium, the taxes that businesses and individuals pay are equal to the respective values they place on public services received; that is, state and local taxes will be benefit taxes. In a competitive environment, therefore, business taxes are unlikely to be used to fund social programs or education. Business taxes will, however, be high enough to pay for services provided for businesses, such as police protection, public utilities, and highways. Likewise, high-income individuals will tend to be taxed in proportion to the benefits they receive from their local governments. High-income individuals will not tend to be subject to taxes that exceed the benefits they receive in order to fund tax or service programs that redistribute income to low-income individuals.

Although the benefit tax result sounds much like a common criticism of the effects of interjurisdictional competition made ten years ago, today, the assessment of this result is much less negative. First, there is no longer an automatic presumption that good tax policy consists of levying a substantial amount of taxes on businesses (in excess of services businesses receive) either because of presumed progressivity of business taxes or because of the idea that businesses as well as individuals should pay their fair share of taxes. This change arises in large part from contributions to the theory of state business tax incidence.[29] Second, there appears to be less emphasis on equity relative to efficiency than there was a decade ago. Finally, there appears to be more interest in relying on the benefit principle, rather than the ability-to-pay principle, for judging the equity of public policies.

Efforts to use tax incentives to attract mobile industry are still generally in disfavor. Current research on interjurisdictional competition for economic development (reviewed in Chapter 5) is still generally critical of individually negotiated tax packages designed to lure new industry or retain existing industry. Theoretical research has argued that such competition may have the characteristics of a negative-sum game (everybody ultimately loses). Empirical research has buttressed the theoretical research by concluding that the cost effectiveness for the offering government for most types of special tax incentives is very low. The few dissenting voices point to the traumas when a state or local government goes through an economic crisis. In certain cases, such as severe recessions, special tax concessions to retain a key industry may constitute reasonable public policy.

Interjurisdictional competition does not necessarily depress the provision of state and local services. In some cases, it can create pressure to increase service levels, and therefore to increase revenues. The literature reviewed in Chapter 4 first stressed the link between taxes and service levels. It then reviewed evidence that spending on certain state and local services, such as education (the only available proxy for the level of services), tended to increase property values, attract migrants, and increase state economic growth. State or local governments operating in a competitive environment, then, would be motivated to provide a higher level, rather than a lower level, of these services.

The review argued in favor of distinguishing among services that exhibit beneficial spillovers (external benefits to third parties) and those that do not. According to economic theory (and supported, in part, by the empirical evidence), when the residents of a state or locality are able to appropriate the bulk of the benefits from a public expenditure, this spending tends to increase property values, personal income, and employment. The opposite tends to hold true for those categories of spending that exhibit significant beneficial spillovers, such as highway and public welfare expenditures.

A separate empirical literature, also relevant to whether interjurisdictional competition will tend to depress state and local service levels, was reviewed in this chapter. This literature examines the relationship between state or local government spending and the degree of potential interjurisdictional competition as measured by the degree of fragmentation of the governmental structure. The bulk of empirical evidence at this point indicates that a competitive local government structure (e.g., more general local governments in a metropolitan area rather than less) leads to a lower level of government spending. Although the authors of some of these studies interpret the empirical results as indicating that interjurisdictional competition is necessary to combat the tendency for governments to overspend in its absence, this conclusion is based on weak foundations. None of this literature has determined the optimal level of government spending much less documented that the potential for interjurisdictional competition tends to reduce government spending toward the optimum.

It is appropriate to judge the effects of interjurisdictional competition according to whether they are equitable or efficient. Furthermore, any evaluation of competition among state and local governments will depend on the alternative to competition. Neither of these guidelines makes it simple to determine whether interjurisdictional competition is good or bad for the federal system. There are alternative definitions of equity and two important components of efficiency. Furthermore, in some cases, additional efficiency can be gained only at the expense of a loss in equity, or vice versa. Much of the literature that purports to analyze the effects of interjurisdictional competition, especially the theoretical literature, compares the effects of interjurisdictional competition to the effects of competition in a market economy. This type of analysis is of limited help in determining whether interjurisdictional competition is preferable to a particular alternative.

Unlike the situation a decade ago, when the assessment of interjurisdictional competition was almost uniformly negative, today, certain aspects of interjurisdictional tax and policy competition generally receive a more favorable assessment. Two decades ago, few observers spoke of any merits of competition among governments. For example, George Break concluded in his classic 1967 text that:

> Active tax competition . . . tends to produce either a generally low level of state-local tax effort or a state-local tax structure with strong regressive features. Paradoxically, the more widespread it is, the more likely it is to produce these debilitating fiscal effects without creating the stimulating economic effects sought by the tax competitors.[30]

A decade ago, ACIR spoke of the need to "protect against unbridled tax competition" and asked, "How does one tell when interstate tax competition is seriously damaging the federal system?"[31]

Today, certain aspects of interjurisdictional tax and policy competition receive a more favorable assessment. The benefits of interjurisdictional competition are recognized along with its costs. The more positive assessment arises from two sources—growth in research indicating the potential benefits of such competition and changes in public opinion, especially about fiscal matters.

New research, most of which was reviewed earlier in this chapter, takes several forms. First, evidence that state and local governments have not always been sufficiently responsive to their citizens lends credibility to the argument that interjurisdictional competition may be an important supplement to intrajurisdictional political competition. Theoretical literature using explicit economic models has contributed examples in which interjurisdictional competition leads to maximum efficiency, or to a situation in which it is impossible to make one person better off without making another worse off. Some of the less formal theoretical literature, such as the work of Albert Breton, has concluded that the general tendency of interjurisdictional competition is beneficial. Both Breton and Shannon argue that interjurisdictional competition serves as one regulator of the federal system and that under some circumstances this regulator has benign results.

None of this literature, however, concludes that interjurisdictional competition provides beneficial results for all types of competition in all circumstances. The market analogy, for example, argues that just as there are important instances of market failure in our predominantly free market economy, there also are likely to be instances in which interjurisdictional competition produces less than benign results. An important type of market failure, called an "external" or "spillover" effect, arises when an economic activity causes incidental benefits or damages to others ("third parties") and for which no mechanism exists for compensating or penalizing those who initially generate the activity. The existence of spillovers among governments, just as the existence of spillovers in the market economy, tends to have harmful effects. For example, competition among governments has harmful effects for the federal system when governments are allowed to "export" certain social costs to residents of other jurisdictions.

To some extent, the more benign evaluation of interjurisdictional competition arises from changing public values. In the equity-efficiency trade-off, efficiency now receives more emphasis and equity, less emphasis relative to two decades ago. To the extent that the revised assessment of interjurisdictional competition arises from the changed climate of public opinion, however, one should be wary. It is the nature of public opinion to go through cycles. If the relative weights currently placed on the two criteria of equity and efficiency were to be reversed, there might be a somewhat different assessment of the benefits and costs of interjurisdictional tax and policy competition.

Notes

[1] In early drafts, we incorporated a third criterion: viability of the states and of the substate governmental systems that make **up** the federal system. After receiving criticism at the critics' session and after giving the matter more thought, we decided to eliminate this criterion. We decided that it was more appropriate to evaluate the results of a governmental system from the viewpoint of the citizens who are to be **served** by that system than from the viewpoint of the officials of the existing governments.

[2] Armen A. Alchian and Harold Demsetz, "Production, Information Costs, and Economic Organization," ***American Economic Review*** ***62*** **(1972): 777-795.**

[3] This is known as the Samuelson condition. Paul A. Samuelson, "The Pure Theory of Public Expenditure," *Review of Economics and Statistics* **36** (November **1955): 387-389.**

[4] See, for example, the discussion in Randall G. Holcombe, "Concepts of Public Sector Equilibrium," ***National Tar Journal*** **33** (March **1980): 77-88.** Holcombe proves that the level of government spending demanded by the median voter of a jurisdiction will also be the optimal spending level when this condition holds: the median voter's tax share is the same proportion of the sum of all voters' marginal tax shares as his or her marginal valuation of public goods is of the sum of the community's marginal valuations.

[5] Both Hal Hovey and Larry White point out that eliminating or reducing competition among governments is a very difficult task. See Larry White, "Should Competition to Attract New Investment Be Restricted?" ***Public Affairs*** **9 (1986): 6-18;** and Harold Hovey, "Curbing Interstate Tax Competition,'' ***State Policy Reports*** *5* (May **13,1987): 4-9**.

[6] John Kincaid, "The Competitive Challenge to Cooperative Federalism," in Daphne A. Kenyon and John Kincaid, eds., ***Competition aniong States arid Local Governments: Efficiency arid Equity in Anterican Federalism*** (Washington, DC: The Urban Institute Press, **1991).**

[7] William A. Niskanen, ***Bureaucracy and Representative Government*** (Chicago: Aldine-Atherton, **1971).**

[8] Geoffrey Brennan and James Buchanan, ***The Power to Tax: Analytical Foundation of a Fiscal Constitiition*** (New York: Cambridge University Press, **1980).**

[9] Thomas E. Borcherding and Robert T. Deacon, "The Demand for the Services of Non-Federal Governments," ***American Economic Review*** **62** (December **1972): 891-901.** Another important early article was Theodore C. Bergstrom and Robert P. Goodman, "Private Demands for Public Goods," ***American Economic Review*** **63** (June **1973): 280-296.**

[10] See also US. Advisory Commission on Intergovernmental Relations, ***Fiscal Discipline in the Federal System: National Reform and the Experience of the States*** (Washington, DC, **1987).**

[11] For reviews **of** the evidence of the flypaper effect see Ronald C. Fisher, "Income and Grant Effects on Local Expenditure: The Flypaper Effect and Other Difficulties," ***Journal of Urban Economics*** **12** (November **1982): 324-345**; and Robert P. Inman, "The Fiscal Performance of Local Governments: An Interpretive Review," in Peter Mieszkowski and Mahlon Straszheim, eds., ***Current Issues in Urban Economics*** (Baltimore: Johns Hopkins University Press, **1979).** pp. **270-321.**

[12] Ronald C. Fisher, ***State and Local Public Finance*** (Glenview, Illinois: Scott, Foresman and Company, **1988)**, p. **359.**

[13] Thomas Romer and Howard Rosenthal, "Bureaucrats versus Voters: On the Political Economy of Resource Allocation by Direct Democracy," ***Quarterly Journal of Economics*** (November **1979);** and Thomas Romer, Howard Rosenthal, and Vincent G. Munley, "Economic Incentives and Political Institutions: Spending and Voting in School Budget Referenda," National Bureau of Economic Research Working Paper, No. **2406,** October **1987.**

[14] Thomas J. DiLorenzo, "Empirical Competition and Political Competition: An Empirical Note," ***Public Choice*** **40 (1983): 203-209;** Wallace E. Oates, "Searching for Leviathan," ***American Economic Review*** 75 (September **1985): 748-757**; Michael A. Nelson, "Searching for Leviathan: Comment and Extension," ***American Economic Review*** **77** (March **1987): 198-204**; Randall W. Eberts and Timothy J. Gronberg, "Can Competition among Local Governments Constrain Government Spending?" ***Economic Review 24*** **(1988): 2-9;** Kevin F. Forbes and Ernest M. Zampelli, "Is Leviathan a Mythical Beast?" ***American Economic Review*** **79** (June **1989): 587-596**; Jeffrey **S.** Zax, "Is There a Leviathan in Your Neighborhood?" ***American Economic Review*** **79** (June **1989): 560-567.**

[15] Wallace **E.** Oates, "Searching for Leviathan: A Reply and Some Further Reflections," ***American Economic Review*** **79** (June **1989): 578-583.**

[16] Forbes and Zampelli, "Is Leviathan a Mythical Beast?"

[17] Oates, "Searching for Leviathan: A Reply and Some Further Reflections."

[18] D. Martin and R. Wagner, "The Institutional Framework for Municipal Incorporation: An Economic Analysis of Local Agency Formation Commissions in California," ***Journal of Law and Economics*** **21** (December **1975): 661-684**; and D. Martin, "Entry Restrictions and Expenditure Effects in the **Local** Government Market," ***Annals of Regional Science*** **14 (1980): 12-22.**

[19] Rodolfo A. Gonzalez and Stephen **L.** Mehay, "Municipal Annexation and Local Monopoly Power," ***Public Choice*** **52 (1987): 245-255.**

[20] The dummy variable Gonzalez and Mehay construct to measure state differences in barriers to entry by new **local** governments is separate from the variable they use to measure power of annexation. In some other research, these two phenomena are not independent. For example, California's Local Agency Formation Commissions examined in the research by Martin and Wagner have the power to accept or reject annexation as

well as incorporation of new local governments. Martin and Wagner, "The Institutional Framework for Municipal Incorporation."

[21] Albert Breton, "Towards a Theory of Competitive Federalism," *European Journal of Political Economy* (Special Issue) *3* (1987): **322.** See also Breton's comments in U.S. Advisory Commission on Intergovernmental Relations, ***Interjurisdictional Competition in the Federal System: A Roundtable Discussion*** (Washington, DC, **1988).**

[22] John Shannon, "Federalism's 'Invisible Regulator'—Interjurisdictional Competition," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press, 1991).

[23] Ibid.

[24] Wallace E. Oates and Robert M. Schwab, "Economic Competition among Jurisdictions: Efficiency Enhancing or Distortion Inducing?" ***Journal of Public Economics*** **35** (April **1988): 333-354.**

[25] Wallace E. Oates and Robert M. Schwab, "The Allocative and Distributive Implications of Local Fiscal Competition," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute Press, 1991).

[26] **A** few other papers attempt to determine whether competition among governments leads to an efficient result. For example, John Wilson has two recent papers in which he uses economic theory from the international trade literature to build models of trade among competitive governments in a federal system. Depending on the specification of his model, Wilson can find that competition among governments is either efficient or inefficient. John Douglas Wilson, "Trade, Capital Mobility, and Tax Competition," ***Journal of Political Economy*** 95 (August **1987): 835-856;** and "Trade in a Tiebout Economy," ***American Economic Review*** **77** (June **1987): 431-441.**

[27] **Therese** J. McGuire, "Federal Aid to States and Localities and the Appropriate Competitive Framework," in Daphne A. Kenyon and John Kincaid, eds., ***Competition among States and Local Governments: Efficiency and Equity in American Federalism*** (Washington, DC: The Urban Institute **Press, 1991).**

[28] For two good reviews of this literature see Joseph **E.** Stiglitz, "The Theory of Local Public ***Goods*** Twenty-Five Years after Tiebout: A Perspective," **in** George **R.** Zodrow, ed., ***Local Provision of Public Services: The Tiebout Model after Twenty-Five Years*** (New York: Academic Press, **1983),** pp. **17-53;** and Anthony B. Atkinson **and** Joseph E. Stiglitz, ***Lectures on Public Economics*** (New York: McGraw-Hill, **1980),** pp. **519-551.**

[29] See especially Charles **E.** McLure, Jr., "The Elusive Incidence **of** the Corporate Income Tax: **The** State Case," ***Public Finance Quarterly*** **9** (October **1981): 395-413;** and for a discussion of the McLure article and related research, see Fisher, ***State and Local Public Finance,*** pp. **226-228.**

[30] **George F.** Break, ***Intergovernmental Fiscal Relations in the United States*** (Washington, DC: The Brookings Institution, **1967),** pp. **23-24.**

[31] The criteria ACIR put forth **for** judging whether interstate tax competition was seriously damaging the federal system were that: (1) some states must be losing jobs and capital investment to other states **because of** high tax levels; and **(2)** the losing states are unable **to stop** the exodus over a reasonable period of time because **of** the hardships that would be **caused** by the necessary tax and service cutbacks. **U.S.** Advisory Commission on Intergovernmental Relations, ***Interstate Tax Competition*** (Washington, **DC, 1981),** pp. **4-5.**

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