

The Impact of State Tax Policy on Economic Growth

Presentation made before the
Maryland Business Tax reform Commission
Business Incentives in the Tax Code Subcommittee
May 4, 2010

Robert G. Lynch
Everett E Nuttle Professor
Department of Economics
Washington College

Good afternoon, I am delighted to be here to share with you some of the findings of my research on the economic effects of state tax policy, in general, and business tax incentives, in particular. This is, of course, an especially important subject now given that we are in the midst of a serious economic downturn and the State of Maryland is grappling with projections of multi-billion dollar budget deficits in the years to come.

As you know, all across the nation State officials are trying to create jobs and grow their local economies. And to achieve these goals they often use tax incentives. So much so, in fact, that they have *may* have become the most widely used economic development tool at the state level. Unfortunately, there is no complete data on the amount of tax incentives provided each year but, several scholars have provided partial estimates. For example, Ken Thomas (2000) estimated that in 1996 alone state and local tax incentives summed to over \$48 billion. And by all indications we are far beyond that amount today.

Now, the typical justification for business tax incentives has been that they are one of the best ways to create jobs and spur growth. But, at a time like this when states cannot afford to waste scarce resources on ineffective programs, we have to ask the tough question: is this in fact true? Do tax incentives promote growth and create jobs in a cost effective manner?

I became interested in this question over 25 years ago when I was living and teaching in upstate New York. In the 1970's and 80's, one of the most discussed economic development programs in New York State involved its Industrial Development Agencies

(IDAs) which provide an array of tax incentives to businesses. The IDAs regularly issued press releases in which they reported that they had provided tax incentives to over three thousand firms operating in New York State and that these tax incentives had created or saved over 270,000 jobs in the state between 1970 and 1991. In addition, officials of the IDAs reported that the tax incentives had caused state and local governments to lose very little revenue. In fact, for many IDA sponsored projects they explained that their had been no tax revenue losses because hundreds of out-of-state firms would not have relocated to New York State in the absence of the tax incentives and the investment projects of many in-state firms would not have gone forward were it not for the tax incentives.

These results were remarkable and I wanted to document them. So, I spent the better part of 4 years trying to confirm these claims. I collected, analyzed, and cross-referenced data from the more than 3000 firms who had received the tax incentives, from the IDA's, from the New York State Department of Economic Development, the NYS Department of Commerce, the Office of the State Comptroller, and from various state commissions and agencies. I then published my findings in two studies.

What I found was the following. Between 1987 and 1991, instead of costing little or nothing, IDA activity caused NY state and local governments to lose \$2.6 billion (2009 dollars) in tax revenues. In addition, the actual number of jobs created or retained by the tax incentive receiving firms was at most only one-third of the number that the IDAs had claimed so that each job retained or created by tax incentives cost at least \$74,000 (2009 dollars) in lost tax revenues.

As I noted at the time, my estimate for the number of jobs saved or created by IDAs was probably an overestimate because it was likely that at least some of the IDA sponsored firms would have undertaken their projects in the absence of the tax incentives and, thus, at least some of the jobs saved or created by the IDA sponsored firms were not a consequence of the tax incentives. Subsequent research has suggested that about 80% or more of the hiring would have taken place in the absence of the tax incentives.

But, what about those hundreds of relocating firms? Well, as it turns out, I found that IDA's had provided tax incentives to a grand total of just 23 firms (with 1,322 jobs) that relocated to NYS (over a ten year period). Only two of these firms told me that the tax incentives played any role in their decision to relocate to NYS. In short, NYS's business tax incentives failed to create a significant number of jobs or to create jobs in a cost effective manner, and they cost billions in lost tax revenues.

As you can imagine, I was disappointed by these results and I wondered if New York's dismal experience with business tax incentives was somehow unique. So, I have spent subsequent years reviewing and analyzing *hundreds* of studies that have examined the effects of state and local taxes on business location and investment decisions, on growth, and on job creation. In addition, I have reviewed the studies that have examined the effects of public services on economic development. Let me summarize four key conclusions that can be drawn from an analysis of what firms actually do in response to tax incentives as opposed to what some claim that they do:

1. There is little evidence that state and local taxation figures prominently in business location or investment decisions. Many studies found no effect of state and local taxes on business location or investment decisions and most studies that did discern an effect, found it to be very small.

Consider the findings of a study done by Lee (Dec 2004), an economist at the Federal Reserve Bank of Cleveland. After analyzing data on all relocations of manufacturing plants in the United States between 1972 and 1992, Lee found that the states with the most generous tax incentives were no more successful in attracting businesses than were the states with the least generous incentives. And, in any case, relocating firms typically accounted for less than 4% of employment growth. Lee concluded that, "Overall, the results of this study support previous findings that the use of public money for tax incentives to attract large industrial plants is not very effective."

2. There is little evidence that state and local tax incentives, when paid for by reducing public services, stimulate economic activity or create jobs. What studies have found is that state and local economies would be stronger if they could maintain public services while paying less for them in taxes. For example, econometric studies have found that the long-run elasticity of business activity with respect to state and local taxes is about -0.2 when public services are held constant (Wasylenko 1997). This means that if we cut business taxes by 10%, we could expect employment over 20 years to increase by an additional 2% assuming

that public services are not cut to pay for the tax incentives. But, in the real world, unless you have rainy day funds or other surplus funds, when you provide state tax incentives you must cut public services too and when you do both simultaneously the net result is not growth and job creation.

3. State and local business tax incentives, to the extent that they create jobs do not do so in a cost-effective manner. In fact, unfortunately, business tax incentives may be causing a net loss of jobs. For every private sector job “created” or “saved” by tax incentives, state and local governments typically lose somewhere between \$45,000 and \$90,000 in revenue annually (Lynch 2004). And, in enterprise zones, where the business tax incentives are most generous the costs per job created by incentives have been estimated to be even higher: from \$70,000 to over \$110,000 (Peters and Fisher 2002).

In the absence of rainy day funds or surplus revenues, these substantial revenue losses force governments to cut back on public services and lay off public employees (and those who work for private firms and not-for-profits that subcontract from the state) in numbers that may be greater than the number of jobs created in the private sector. The net effect of business tax incentives, thus, may be a loss of jobs. Keep in mind too that on top of this job loss, citizens suffer from the loss of public services whether it is fewer teachers or fire fighters or police officers.

4. There is evidence that reductions in public services due to tax incentives cause job loss and economic slowdown. Studies that have measured the effects of raising taxes and using the revenues to improve public services have found positive economic results (Helms 1985, Bartik 1989, Munnell 1990, Goss and Phillips 1994, Bartik 1996). These studies have an implication for how the state of Maryland should close its budget deficit. They inform us that the State of Maryland will probably fare better if it raises \$2 billion in revenues than if it cuts public spending by \$2 billion to eliminate its impending deficit. We can also learn from the experiences of many other states. For example, in fiscal 2004, the state of Michigan closed a nearly \$1 billion deficit largely by cutting public spending. The results were not good and an econometric study (by Bartik and Erickcek 2003) concluded that if the state balanced its budget by increasing revenues instead of cutting spending, employment in Michigan would be higher by over 7,600 jobs and personal income would be greater by \$309 million. These numbers give us a rough idea of what may happen in Maryland.

You may be wondering why the research shows that business tax incentives are ineffective and yet business lobbyists assert over and over again that state and local taxes significantly raise the cost of doing business, substantially lower profits, and destroy jobs. In addition, they will tell you that differences in tax burdens across states cause firms to flee from the high tax to the low tax states. Therefore, business tax incentives, by lowering costs and raising profits should foster growth and attract businesses and jobs to Maryland.

These arguments sound plausible until you look at the facts. IRS business income tax return data show that all state and local taxes paid by businesses in 2000 accounted for only 1.2% of business costs.¹ In other words, if all state and local taxes paid by business were not just reduced but, instead, totally eliminated, then the costs of doing business in Maryland would be lowered by about 1%. Likewise, all state and local business taxes, assuming that they are all paid by businesses, reduce profits by only a small amount. For example, for a typical firm with a pre-tax profit rate of 10%, state and local taxes typically reduce that profit rate to somewhere between 9.3% and 9.6%

This means that relatively small differences in the other 99% of the costs of doing business will swamp the effects of tax incentive induced differences in profit rates. Consider, for example, labor costs which are more than twenty times greater than state and local business taxes. A 5% increase in labor productivity in Maryland, which is about one dollar per hour, would do more for a firm's bottom line than a 100% reduction in Maryland's business taxes.

¹ According to the Internal Revenue Service's Statistics on Income Bulletin (Spring 2003), total business receipts and costs (deductions) in 2000 (the most recent year for which complete data are available) amounted to \$24,032.2 billion and \$22,634.4 billion, respectively. According to Census data, in Fiscal year 2000-2001 total State and Local tax revenues were \$914.1 billion. The methodology developed by the U.S. Advisory Commission on Intergovernmental Relations (1981) suggests that the share of state and local taxes paid by business was roughly 30% in 2000-2001. Applying this methodology, the amount of state and local taxes paid by business in 2000-2001 was approximately \$274.2 billion (thirty percent of \$914.1 billion). Dividing \$274.2 billion first by \$24,032.2 billion and then by \$22,634.4 results in the estimates that state and local taxes paid by business reduced revenues by 1.1% and represent about 1.2% of the total costs of doing business. Given a federal corporate income tax rate of 35% and a top marginal tax rate on income derived from partnerships and sole proprietorships of 39.6% in 2000, the impact of federal deductibility is conservatively estimated to reduce the burden of state and local taxes by one third.

A business sponsored trade association, The Council On State Taxation (see Cline, Fox, Neubig, and Phillips, 2003), has calculated that state and local business taxes amounted to \$371.6 billion in 2000-2001 or 40.4% of total state and local taxes. Using this much higher estimate of the burden of state and local taxes on businesses does not substantially change the results reported above: state and local taxes paid by business represent about 1.5% of business receipts and 1.6% of total business costs before deductibility, and 1% of receipts and 1.1% of total costs after federal deductibility.

These other 99% of the costs of conducting business are the most important factors affecting business investment and location decisions. These key factors include first and foremost, the cost and quality of labor but also include access to quality public services such as transportation networks, good schools, health services, recreational and cultural facilities, public safety, and quality housing. These factors have a much greater impact on a firm's bottom line than state taxes do, as they influence almost 99% of total costs. Tax incentives, therefore, can only sway an investment location decision if the differences in all of the primary location factors at alternative sites are very small.

A broad range of studies of the relative multiplier effects of business tax incentives versus spending on public services confirms these conclusions. Consider for example the multiplier estimates put out by Moody's Economy.com in January 2010. They calculated the multiplier effects for general state government spending at 1.41 and increased infrastructure spending at 1.57. By contrast, business tax incentives such as accelerated depreciation and loss carryback had multiplier effects of only 0.25 and 0.22.

The tax burden argument ignores the fact that taxes are not just burdens. Taxes are also the means by which businesses pay for the numerous benefits they receive from government - the public services and infrastructure that businesses rely on to thrive. When tax incentives cause reductions in public services, firms may be forced to spend more, for example, on the education and training of their workers, on health services for employees and their families, on security for the workplace, and on basic infrastructure and

transportation costs. As a consequence, in the absence of adequate taxation, the provision of “public” services becomes an internal cost to firms. Thus, tax incentives may not reduce the costs of doing business but may, instead, contribute to rising business costs, falling profits, slower growth and job declines.

So, what works in creating jobs and raising living standards? In general, we know that states should be focusing on strengthening those attributes which make a community a great place to live. Policies that strengthen our schools, improve infrastructure, make our communities clean and safe, ameliorate health care, reduce crime, and support families make a state a great place to invest, work, and live.

The research is very strong in several specific areas. We know that public investment in high quality pre-k programs generate enormous bang for the buck eventually generating 8 or more dollars in economic benefits for every dollar invested in the programs. Likewise, summer school programs, strengthening our k through 12 education system, and adult job training programs can significantly increase the productivity of the labor force and substantially reduce the cost of doing business in Maryland. Similarly, customized training programs subsidized by the state, offered at community colleges, and made available to private sector employers have been shown to be cost-effective in creating jobs. Research evidence also shows that manufacturing extension services can create jobs more cost-effectively than business tax breaks. These programs help manufacturers become more competitive and successful by providing consulting services to manufacturers in areas such as engineering, computers, marketing, and business planning. Another effective

program is to temporarily subsidize new job creation by public and private employers for the long-term unemployed. The MEED program in Minnesota which was active from 1983–1989 is a good example. It provided subsidies to employers of up to \$10 an hour to hire individuals and is estimated to have been about twice as cost effective in creating jobs as are business tax incentives.

The bottom line is that state and local taxes *at their current levels* are relatively unimportant factors in business investment decisions so that tax incentives are not likely to be very helpful in creating jobs or spurring growth. Investing in public services, on the other hand, can serve as a catalyst to economic and job growth and can contribute to improving the quality of life of citizens. Hence, state and local governments may be wasting billions of dollars annually on tax incentive policies that are failing while under funding programs that can promote long-term growth and job creation.

My hope is that this Tax Reform Commission helps put an end to ineffective tax policies and encourages the State to focus its attention on economic policies that work to create jobs and promote growth. Thank you.

Bibliography

- Ambrosius, M. 1989. The effectiveness of state economic development policies: A time series analysis. *Western Political Quarterly*. Vol. 42, No. 3, pp. 283-300.
- Anderson, John, and Robert Wassmer. 1999. "Are local economic development incentives effective in an urban area?" National Tax Association, Proceedings of the 92nd Annual Conference, Atlanta, Ga.
- Anderson, John, and Robert Wassmer. 2000. *Bidding for Business: The Efficiency of Local Economic Development Incentives in a Metropolitan Area*. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research.
- Bartik, Timothy, Charles Becker, Steve Lake, and John Bush. 1987. "Saturn and State Economic Development." In E.S. Mills, ed., *Handbook of Regional and Urban Economics*. New York: Elsevier Science Publishers.
- Bartik, Timothy. 1989. Small business start-ups in the United States: Estimates of the effects of characteristics of states. *Southern Economic Journal*. Vol. 55 (April), pp. 1004-18.
- Bartik, Timothy. 1991. *Who Benefits From State and Local Economic Development Policies?* Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research.
- Bartik, Timothy. 1992. The effects of state and local taxes on economic development: A review of recent research. *Economic Development Quarterly*. Vol. 6, No.1 (February), pp. 102-10.
- Bartik, Timothy. 1994a. "Taxes and local economic development: What do we know and what can we know?" Proceedings of the 87th Annual Conference on Taxation of the National Tax Association, Charleston, S.C., November 13-15, pp. 102-6.
- Bartik, Timothy. 1994b. Jobs, productivity, and local economic development: What implications does economic research have for the role of government? *National Tax Journal*. Vol. 47 (December), pp. 847-61.
- Bartik, Timothy. 1996. *Growing State Economies: How Taxes and Public Services Affect Private Sector Performance*. Washington D.C.: Economic Policy Institute.
- Bartik, Timothy. 2003. "Local economic development policies." W.E. Upjohn Institute for Employment Research, Working Paper No. 03-91. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research.
- Bartik, T., and G. Erickcek. 2003. "Economic impact of various budgetary policy options for the state of Michigan to resolve its budget deficit for FY 2004." W.E. Upjohn Institute for Employment Research, Working Paper. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research.
- Bauer, Paul, and Brian Cromwell. 1989. The effect of bank structure and profitability on firm openings. *Economic Review*, Federal Reserve Bank of Cleveland. Vol. 25, No. 4, pp. 29-37.
- The Beacon Hill Institute. 2000. *Modeling Tax Policy in New York Using the State Tax Analysis Modeling Program*. Boston, Mass: Suffolk University.
- Becki, Zsolt. 1996. Do state and local taxes affect relative state growth? *Economic Review*, Federal Reserve Bank of Atlanta. Vol. 81, No. 2 (March/April), pp.18-36.

- Benson, Bruce, and Ronald Johnson. 1986. The lagged impact of state and local taxes on economic activity and political behavior. *Economic Inquiry*. Vol. 24 (July), pp. 389-401.
- Berry, Dan, and David Kaserman. 1993. A diffusion model of long-run state economic development. *Atlantic Economic Journal*. Vol. 21, No. 4, pp. 39-54.
- Blair, John P., and Robert Premus. 1987. Major factors in industrial location: A review. *Economic Development Quarterly*. Vol.1, No.1.
- Bloom, Clark. 1955. *State and Local Tax Differentials*. Iowa City, Iowa: Bureau of Business Research, State University of Iowa.
- Brace, Paul. 1993. *State Government and Economic Performance*. Baltimore, Md.: Johns Hopkins University Press.
- Bridges, Benjamin. 1965. State and local inducements for industry: Part II. *National Tax Journal*. Vol. 18 (June), pp. 175-92.
- Budget of the U.S. Government, Fiscal Year 2004, Historical Tables, table 15.3.
- Bureau of Economic Analysis. 2003. *Survey of Current Business*. U.S. Department of Commerce, Economics and Statistics Administration, August.
- Burstein, Melvin, and Arthur Rolnick. 1994. "Congress Should End the Economic War Among the States." Minneapolis, Minn.: Federal Reserve Bank of Minneapolis, 1994 Annual Report.
- Canto, Victor, and Robert Webb. 1987. The effect of state fiscal policy on state relative economic performance. *Southern Economic Journal*. Vol. 54, No. 1, pp. 186-202.
- Carlton, Dennis. 1983. The location and employment choices of new firms: An econometric model with discrete and continuous endogenous variables. *Review of Economics and Statistics*. Vol. 65, No. 3, pp. 440-9.
- Carroll, Robert, Douglas Holtz-Eakin, Mark Rider, and Harvey Rosen. 2000. "Personal income taxes and the growth of small firms." National Bureau of Economic Research, Working Paper No. 7980. Cambridge, Mass.: NBER.
- Carroll, Robert, and Michael Wasylenko. 1991. "Employment Growth and State Government Fiscal Behavior 1973 to 1987." In Therese J. McGuire and Dana Wolfe Naimark, eds., *State and Local Finance for the 1990s: A Case Study of Arizona*. Tempe, Arizona: Arizona State University School of Public Affairs.
- Carroll, Robert, and Michael Wasylenko. 1994. Do state business climates still matter: evidence of a structural change. *National Tax Journal*. Vol. 47, No.1 (March), pp. 19-37.
- Cashin, Paul. 1995. "Government spending, taxes, and economic growth." International Monetary Fund, Staff Paper.
- Cassell, Mark. 2003. "Zoned out: Distribution and benefits in Ohio's enterprise zone program." Cleveland, Ohio: Policy Matters Ohio.
- Chernick, Howard. 1997. Tax progressivity and state economic performance. *Economic Development Quarterly*. Vol. 11, No. 3.
- Chirinko, R., Fazzari, S., and A. Meyer. 1999. How responsive is business capital formation to its user cost? An exploration with micro data. *Journal of Public Economics*. Vol. 74, pp. 53-80.

- Cline, Robert, William Fox, Tom Neubig, and Andrew Phillips. 2003. "Total State and Local Business Taxes: Fiscal Year 2003 Update." Washington, D.C.: The Council on State Taxation.
- Corporation For Economic Development. 1994a. "Bidding For Business: Are Cities and States Selling Themselves Short?" Washington, D.C.: CFED.
- Corporation For Economic Development. 1994b. "The 1994 Development Report Card For The States," Washington, D.C.: CFED.
- Coughlin, Cletus, Joseph Terza, and Vachira Arrondee. 1991. State characteristics and the location of foreign direct investment within the United States. *The Review of Economic and Statistics*. Vol. 73, pp. 675-83.
- Crain, W. Mark, and Katherine Lee. 1999. Economic growth regressions for the American states: A sensitivity analysis. *Economic Inquiry*. Vol. 37, No. 2 (April), pp. 242-57.
- Crihfield, John. 1989. A structural empirical analysis of metropolitan labor demand. *Journal of Regional Science*. Vol. 29, No. 3, pp. 347-71.
- Dalenberg, Douglas, and Mark Partridge. 1995. The effects of taxes, expenditures and public infrastructure on metropolitan area employment. *Journal of Regional Science*. November.
- Due, John. 1961. Studies of state and local tax incentives on location of industry. *National Tax Journal*. Vol. 14 (June), pp. 163-73.
- Dye, Thomas, and Richard Feiock. 1995. State income tax adoption and economic growth. *Social Science Quarterly*. Vol. 76, No. 3 (September).
- Economic Report of the President. Various years. Washington, D.C.: U.S. General Printing Office.
- Engen, Eric, and Jonathan Skinner. 1999. "Taxation and Economic Growth." In Joel Slemrod, ed., *Tax Policy in the Real World*. Cambridge, U.K.: Cambridge University Press.
- Fazzari, Steven. 1999. "Capital Income Taxes and Economic Performance." Policy Note 1999/7. Annandale-on-Hudson, N.Y.: The Jerome Levy Economics Institute.
- Feldstein, Martin. 1997. How big should government be? *National Tax Journal*. Vol. 50, No. 2 (June), pp. 197-213.
- Fisher, Peter, and Elaine Ditsler. 2003. "Taxes and State Economic Growth: The Myths and the Reality." A report for the Iowa Policy Project, Mount Vernon, Iowa.
- Fisher, Peter, and Alan Peters. 1998. *Industrial Incentives: Competition Among American States and Cities*. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research.
- Fisher, Peter, and Alan Peters. 2000. "The cost of enterprise zone incentives and an alternative use of the money." National Tax Association Proceedings, 93rd Annual Conference, Santa Fe, N.M., pp. 67-73.
- Fisher, Ronald. 1997. The effects of state and local public services on economic development. *New England Economic Review*. March/April.
- Fortune Inc. 1982. "Why Corporate America Moves Where." Market Research Survey. New York, N.Y.: *Fortune Inc.*
- Fox, William, and Matthew Murray. 1990. Local public policies and interregional business development. *Southern Economic Journal*. Vol. 57 (October), pp. 413-27.

- Galor, Oded, and Joseph Zeira. 1993. Income distribution and macroeconomics. *Review of Economic Studies*. January, pp. 35-52.
- Gittell, Ross, Allen Kaufman, and Marvin Karson. 2000. The new geography of the states. *Economic Development Quarterly*. Vol. 14, No. 2 (May), pp.182-93.
- Goldstein, M. 1984. Choosing the right site. *Industry Week*. April 15, pp. 57-60.
- Goss, Ernest, and Joseph Phillips. 1994. State employment growth: The impact of taxes and economic development agency spending. *Growth and Change*. Vol. 25 (summer), pp. 287-300.
- Greenhut, M., and M. Goldberg. 1962. *Factors in the Location of Florida Industry*. Tallahassee, Fla.: Florida State University Press.
- Grieson, Ronald, William Hamovitch, and Richard Morgenstern. 1977. The effects of business taxation on industry. *Journal of Urban Economics*. April.
- Hakkio, Craig, Mark Rush, and Timothy Schmidt. 1996. The marginal income tax rate schedule from 1930 to 1990. *Journal of Monetary Economics*. Vol. 38, pp. 117-38.
- Hall, R., and D. Jorgenson. 1967. Tax policy and investment behavior. *The American Economic Review*. Vol. 57, No. 3 (June), pp. 391-414.
- Heckman, James. 1993. What has been learned about labor supply in the past twenty years. *American Economic Review*. Papers and Proceedings, May.
- Hekman, John. 1982. Survey of location decisions in the South. *Economic Review*. June, pp. 6-19.
- Helms, Jay. 1985. The effect of state and local taxes on economic growth: A time series cross section approach. *The Review of Economics and Statistics*. Vol. 67, No. 4 (February), pp. 574-82.
- Hines, James. 1996. Altered states: Taxes and the location of foreign direct investment in America. *American Economic Review*. Vol. 86, No. 5, pp. 1076-94.
- Hinkley, Sarah, and Fiona Hsu. 2000. "Minding the Candy Store: State Audits of Economic Development." Washington D.C.: Good Jobs First.
- Howard, Marcia. 1994. "A Corporate Welfare Reform Agenda." Washington, D.C.: American Federation of State, County, and Municipal Employees.
- Inc. Magazine*. 1980. Building and site selection. *Inc. Magazine*.
- Industry Week*. 1985. Choosing the right site. *Industry Week*. April 15, pp. 57-60.
- Internal Revenue Service. 2003. Statistics of Income Bulletin. Washington D.C.: Internal Revenue Service.
- Kieschnick, Michael. 1981. *Taxes and Growth: Business Incentives and Economic Development*. Washington D.C.: Council of State Planning Agencies.
- LeRoy, Greg. 1999. The terrible ten corporate candy store deals of 1998. *The Progressive*. Vol. 63, No. 5 (May).
- Lynch, Robert. 1994. New York State's Industrial Development Agencies: Boon or Boondoggle? Fiscal Policy Institute, Albany, New York.

- Lynch, Robert, Gunther Fishgold, and Dona Blackwood. 1996. The effectiveness of firm-specific tax incentives in promoting economic development: Evidence from New York state's industrial development agencies. *Economic Development Quarterly*. Vol. 10, No. 1 (February), pp. 57-68.
- Lynch, Robert, 2004. Rethinking Growth Strategies: How State and Local Taxes and Services Affect Economic Development, Economic Policy Institute: Washington, D.C.
- Mark, Stephen, Therese McGuire, and Leslie Papke. 2000. The influence of taxes on employment and population growth: Evidence from the Washington, D.C. metropolitan area. *National Tax Journal*. Vol. 53, No. 1, pp. 105-24.
- McConnell, Virginia, and Robert Schwab. 1990. The impact of environmental regulation on industry location decisions: The motor vehicle industry. *Land Economics*. Vol. 66, No. 1, pp. 67-81.
- McGuire, Therese. 2003. "Do taxes matter? Yes, no, maybe so." Report prepared for Lincoln Institute of Land Policy/Arizona State University conference, March 21. Tax Analysts Document Number: Doc 2003-13758.
- McGuire, Therese, and Michael Wasylenko. 1987. "Employment growth and state government fiscal behavior: A report on economic development for states from 1974 to 1984." Report prepared for the New Jersey State and Local Expenditure and Revenue Policy commission, July 2.
- Mead, Charles Ian. 1999. "On the User Costs of Capital," National Tax Association Proceedings, 92nd Annual Conference, Atlanta, Georgia.
- Mead, Charles Ian. 2001. "State user costs of capital." Federal Reserve Bank of Boston, Working Paper 01-3.
- Property Tax Study Project. 2000. "Small Business Survival Index Severely Flawed." In *Tax Facts: A Newsletter of the Property Tax Study Project*, Minneapolis, Minn., March 23.
- Mofidi, Alaeddin, and Joe Stone. 1990. Do state and local taxes affect economic growth? *The Review of Economics and Statistics*. Vol.72, No. 4 (November), pp. 986-91.
- Morgan, William. 1964. "The effects of state and local tax and financial inducements on industrial location." University of Colorado, Ph.D. dissertation.
- Mueller, E., A. Wilken, and M. Woods. 1961 "Location Decisions and Industrial Mobility in Michigan." Ann Arbor, Mich.: Institute for Social Research.
- Munnell, Alicia. 1990. How does public infrastructure affect regional economic performance? *New England Economic Review*. September/October, pp.11-33.
- Nakosteen, Robert, and Michael Zimmer. 1987. Determinants of regional migration by manufacturing firms. *Economic Inquiry*. Vol. 25, No. 2, pp. 351-62.
- National Conference of State Legislatures. *State Budget Actions*, various years. Washington, D.C.
- National Conference of State Legislatures. *State Tax Actions*, various years. Washington, D.C.
- National Governors' Association. 1992. *Investing In America's Economic Future: States and Industrial Incentives*. pp. 5-19.
- New York State Council on State Priorities. 1982. Report to the Governor. Albany, N.Y.
- Orszag, Peter, and Joseph Stiglitz. 2001. "Budget Cuts Versus Tax Increases at the State Level: Is One More Counter-Productive Than the Other During a Recession?" Washington, D.C.: Center on Budget and Policy Priorities.

- Papke, James. 1995. "The convergence of state-local business tax costs: Evidence of de facto collaboration." Proceedings of the 88th Annual Conference on Taxation, San Diego, Calif., October 8-10. National Tax Association-Tax Institute of America, p. 195-206.
- Papke, Leslie. 1987. Subnational taxation and capital mobility: Estimates of tax-price elasticities. *National Tax Journal*. Vol. 40, No. 2, pp. 191-203.
- Peters, A., and P. Fisher. 2002. *State Enterprise Zone Programs: Have They Worked?* Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research.
- Phillips, J., and E. Goss. 1995. The effect of state and local taxes on economic development: A meta-analysis. *Southern Economic Journal*. Vol. 62 (October), pp. 320-33.
- Plaut, Thomas, and Joseph Pluta. 1983. Business climate, taxes and expenditures, and state industrial growth in the United States. *Southern Economic Journal*. Vol. 50, pp. 99-109.
- Rondinelli, Dennis, and William Burpitt. 2000. Do government incentives attract and retain international investment? A study of foreign-owned firms in North Carolina. *Policy Sciences*. Vol. 33, No. 2, pp. 181-205.
- Rubin, M. 1991. "Urban Enterprise Zones in New Jersey: Have They Made a Difference?" In R. Green, ed., *Enterprise Zones*. Newbury Park, Calif.: Sage Publications, pp. 105-21.
- Schmenner, Roger. 1978. "The manufacturing location decision: Evidence from Cincinnati and New England." Paper prepared for the Economic Development Administration, U.S. Department of Commerce: Washington, D.C.
- Schmenner, Roger. 1980. *The Location Decisions of Large Multiplant Companies*. Washington, D.C.: U.S. Department of Housing and Urban Development.
- Schmenner, Roger. 1982. *Making Business Location Decisions*. Englewood Cliffs, N.J.: Prentice Hall.
- Stafford, Howard. 1974. "The Anatomy of the Location Decision: Content Analysis of Case Studies." In F. Hamilton, ed., *Spatial Perspectives in Industrial Organization and Decision Making*. New York, N.Y.: Wiley, pp. 169-88.
- Stiglitz, Joseph. 1986. *Economics of the Public Sector*. New York, N.Y.: W.W. Norton & Company.
- Tannenwald, Robert. 1993. "Can Massachusetts Compete"? State Tax Notes, May 31.
- Tannenwald, Robert. 1994. Massachusetts' tax competitiveness. *New England Economic Review*. January/February.
- Tannenwald, Robert. 1996. State business tax climate: How should it be measured and how important is it? *New England Economic Review*. January/February.
- Thomas, Kenneth. 2000. *Competing for Capital: Europe and North America in a Global Era*. Washington, D.C.: Georgetown University Press.
- Thompson, Wilber, and John Matilla. 1959. *An Econometric Model of Postwar State Industrial Development*. Detroit, Mich.: Wayne State University Press.
- United States Advisory Commission on Intergovernmental Relations. 1981. "Regional Growth: Interstate Tax Competition." Paper number A-76. Washington, D.C., March.

- United States Advisory Commission on Intergovernmental Relations. 1991. "Interjurisdictional Tax and Policy Competition: Good or Bad for the Federal System?" Paper Number M-1777, Washington, D.C.: April.
- United States Advisory Commission on Intergovernmental Relations. 1993. "Significant Features of Fiscal Federalism," Volume 2, September.
- United States Census Bureau. Various Years. *Government Finances*.
- United States Department of Commerce. Various Years. *Statistical Abstract of the United States*. Economics and Statistics Administration, U.S. Census Bureau.
- United States General Accounting Office. 1993. "Industrial development bonds: Achievement of public benefits is unclear." Report to the Chairman of the Human Resources and Intergovernmental Relations Subcommittee of the Committee on Government Operations. U.S. House of Representatives, April.
- Vedder, Richard, and Lowell Gallaway. 1996. Spatial variations in U.S. unemployment. *Journal of Labor Research*, Vol. 17, No.3 (summer), pp. 445-61.
- Walker, R., and D. Greenstreet. 1989. "Public policy and job growth in manufacturing: An analysis of incentive and assistance programs." Paper presented at the 36th North American Meetings of the Regional Science Association, Santa Barbara, Calif., November 10-12.
- Wasow, Bernard. 2002. "Tax Breaks and Behavior, A Review of Evidence." In Eric Toder, Bernard Wasow, and Michael Eitlinger, *Bad Breaks All Around: The Report of The Century Foundation Working Group On Tax Expenditures*. New York, N.Y.: The Century Foundation Press.
- Wassmer, Robert. 1991. "The Forgotten Element in the High Tax/Low Growth Argument." *Tax Analysts: State Tax Notes*, December 10.
- Wasylenko, Michael. 1997. Taxation and economic development: The state of the economic literature. *New England Economic Review*. March/April.
- Wasylenko, Michael, and Therese McGuire. 1985. Jobs and taxes: The effect of business climate on states' employment growth rates. *National Tax Journal*. Vol. 38, No. 4 (December), pp. 497-512.
- Wilson, Roger. 1989. *State Business Incentives and Economic Growth: Are They Effective? A Review of the Literature*. Lexington, K.Y.: The Council of State Governments.
- Wyatt, Cathleen Magennis. 1994. Zero sum games. *State Government News*. April, p.28-32.