

1-1-2003

## Local Economic Development Policies

Timothy J. Bartik  
*W.E. Upjohn Institute, bartik@upjohn.org*

Upjohn Institute Working Paper No. 03-91

**\*\*Published Version\*\***

In [Management Policies in Local Finance](#), 5th ed., edited by Richard J. Aronson and Eli Schwartz. Washington, D.C.: International City/County Management Association, 2004, pp. 355-390. Under title Economic Development

Follow this and additional works at: [https://research.upjohn.org/up\\_workingpapers](https://research.upjohn.org/up_workingpapers)



Part of the [Regional Economics Commons](#)

---

### Citation

Bartik, Timothy J. 2003. "Local Economic Development Policies." Upjohn Institute Working Paper No. 03-91. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. <https://doi.org/10.17848/wp03-91>

This title is brought to you by the Upjohn Institute. For more information, please contact [repository@upjohn.org](mailto:repository@upjohn.org).

# **Local Economic Development Policies**

Upjohn Institute Staff Working Paper No. 03-91

by

Timothy J. Bartik  
Senior Economist  
The W.E. Upjohn Institute for Employment Research  
300 South Westnedge Avenue  
Kalamazoo, Michigan 49007  
(269) 343-5541  
bartik@upjohninst.org

January 2003

JEL Classification Codes: R580, R380, R110, R230

Paper prepared for publication as a chapter in the Fifth Edition of *Management Policies in Local Government Finance*, edited by J. Richard Aronson and Eli Schwartz, and published by International City/County Management Association. This new chapter is a totally revised version of my chapter, “Strategies for Economic Development” that appeared in the Fourth Edition. Although obviously some of the issues are the same, this new version adds many new issues, and has been completely reorganized, rethought, and rewritten. I appreciate the assistance of Linda Richer, Babette Schmitt, Julie Kurtz, and Claire Black with this paper.

## Abstract

This chapter seeks to provide useful advice for local government policy towards economic development programs. The chapter: reviews the size and scope of local economic development programs in the United States; critically analyzes the various rationales offered for these programs; makes recommendations for what local policy should do about business attraction and incentives, business retention, new business development, high technology development, brownfield development, distressed neighborhoods, and downtowns; and discusses how local economic development programs should be organized, managed, and evaluated.

Local governments are becoming increasingly involved in local economic development programs: government-supported programs that seek to increase local jobs or the local tax base by measures such as providing assistance to individual businesses. This chapter's purpose is to provide three types of information: 1) a brief overview of local economic development policies in the United States; 2) a conceptual framework to help local officials decide the appropriate goals, scope, and scale of economic development policies; and 3) a discussion of individual economic development programs with evaluations and policy recommendations.<sup>1</sup>

Among the questions addressed by this chapter are:

- What are the roles of local governments versus other groups in local economic development policies?
- What major activities are carried out under the label of “local economic development programs”?
- How much in resources is devoted to local economic development programs?
- Under what circumstances are local economic development programs most likely to enhance the fiscal health of local governments?
- What can be done to enhance the benefits of local economic development in increasing the quantity and quality of jobs held by local residents?
- What “market failures” might justify government assistance to individual businesses?
- What programs are most effective in attracting new business to a local area and retaining existing businesses?
- What programs are most effective in promoting small business start-up and expansions?
- What programs are most effective in developing technology-oriented businesses?
- What programs will help develop “brownfields” (sites with possible environmental contamination problems), sites in distressed neighborhoods, and downtowns?
- How should local economic development efforts be organized?
- How can local economic development programs be evaluated in a way that is useful to program managers?

### **Overview of Local Economic Development Policies**

Local economic development may be defined as increases in the “local economy’s capacity to create wealth for local residents.”<sup>2</sup> Such increases occur if local resources, such as labor and

land, are used more productively. Economic development can occur through local job growth, which causes unemployed labor and land to be used. But economic development also occurs by shifting employed labor and land to more productive uses, for example better jobs.

Local economic development is arguably affected by all local government activities. However, local economic development policy is usually defined more narrowly as special activities, undertaken by public or private groups, to promote economic development. The activities labeled “economic development programs” fall into two categories:

1. Providing customized assistance targeted at individual businesses that are thought to provide greater economic development benefits; and
2. Strategic initiatives in which more general tax, spending, and regulatory policies of government are changed to promote local economic development.

Even without these government efforts, local economic development will often occur. However, local economic development programs are argued to increase the quantity or quality of local economic development.

Local economic development is increasingly regarded as a major local government responsibility; according to one survey of city elected officials, 86 percent believe that “bringing about economic development” is a major responsibility of local governments.<sup>3</sup> The “first priority goal” for local economic development is “increasing jobs located in the city” (48 percent of city elected officials), increasing the local tax base (18 percent), and diversifying the local economy (10 percent), with the remaining quarter of those surveyed listing miscellaneous other first priorities.<sup>4</sup>

Although local governments play an important role in local economic development, other groups are also involved. According to a 1999 survey by the International City/County Management Association (ICMA) of chief administrative officers in cities and counties, the creation of local economic development strategies involved the participation of local Chambers of Commerce (77 percent of administrators reported such involvement), private businesses (55 percent), citizen advisory boards (50 percent), a public/private partnership (41 percent), state government (30 percent), utilities (29 percent), and a private economic development foundation (22 percent).<sup>5</sup> Economic development

programs are carried out by many entities, including local business organizations, local universities or community colleges, and public/private partnerships.

According to the 1999 ICMA survey of local governments, the most common barriers to local economic development include limited availability of land (listed by 57 percent of all chief administrators), lack of skilled labor (47 percent), high land costs (41 percent), lack of capital and funding (39 percent), citizen opposition (32 percent), a limited number of major employers (27 percent), and traffic congestion (27 percent). Local government economic development strategies focus on manufacturing industries (listed by 70 percent of chief administrators), retail or service industries (68 percent), technology and telecommunications (53 percent), tourism (42 percent), and warehousing and distribution industries (38 percent). Among the most common economic development programs supported by local governments are: tax incentives, either citywide or in designated zones (listed by 66 percent of all local governments); job training programs customized to the needs of individual firms or industries (63 percent); community development loan funds for businesses (55 percent); community development corporations (53 percent); and microenterprise programs (27 percent).

The local government staff who devote a majority of their time to economic development average 2 to 3.5 staff persons per 100,000 in the local population.<sup>6</sup> City government spending for economic development usually is between \$7 and \$16 per capita,

### **Kalamazoo's Many Economic Developers**

The Kalamazoo, Michigan area (county population about 240,000) is typical in having many public, private, and public/private groups engaged in many economic development activities. The lead economic development organization is Southwest Michigan First (SMF), a private nonprofit that receives funds from the private sector, the county, the central city of Kalamazoo, the largest suburban community (Portage), and local foundations. SMF is involved in business recruitment, business retention, and high technology development activities, including helping firms find new sites in Kalamazoo, working with Western Michigan University to develop a research park, sponsoring a business visitation program to existing businesses, and sponsoring both a regular business incubator and a high tech incubator. A local private college runs a Small Business Development Center with federal and local funding. The local community college runs a training center, built with state funding, which provides businesses with customized training, funded by employer fees or grants from the state's economic development agency. The two largest cities, Kalamazoo and Portage, each have their own economic developers who seek to promote the development of particular areas of these cities: in Kalamazoo, various brownfields, the downtown, and neighborhood business districts, and in Portage the continued health of the county's main shopping areas. The city of Kalamazoo also supports an independent nonprofit agency that oversees downtown redevelopment, in part using revenues from a "tax increment financing" district that receives revenue from property value improvements in the downtown.

annually. This implies that for the entire United States, total local government spending for economic development is between \$2 and \$4 billion annually. However, detailed state studies suggest that direct local spending on economic development is far exceeded by local tax incentives to promote economic development. For example, a recent study of Michigan suggests that local government tax incentives for economic development are over \$40 per capita, mostly in property tax abatements for new or expanding manufacturing plants (over \$30 per capita in foregone revenue annually), and “tax increment financing,” in which the property tax increment from growth in a designated district is used to finance infrastructure in that district (\$9 per capita).<sup>7</sup> Based on this and similar studies, local tax incentives for economic development provide tax savings to businesses from base rates of over \$10 billion annually for the entire United States.

### **Goals of Economic Development Policies**

Local economic development programs are often politically controversial, because they involve government assistance to individual businesses, which may be perceived by political liberals as “corporate welfare” and by political conservatives as unwarranted government interference with the private sector. Such ideological issues help motivate citizen oppositions to economic development policies, which is often a major barrier to successful local economic development policies. On the other hand, local economic development programs often seem difficult to constrain: once the government is supporting a few individual businesses, how do local government managers rationalize saying no to requests for support from other businesses? Local government managers need to encourage a local consensus about appropriate goals of economic development policies. An agreement about goals provides a basis for deciding what local economic development efforts should and shouldn’t do.

Public subsidies for economic development can be rationalized by new jobs leading to fiscal benefits and employment benefits. Fiscal benefits occur when new jobs add more tax revenue than public expenditure. Employment benefits occur when new jobs result in employment for persons

who otherwise would be unemployed. Employment benefits also occur when new jobs allow workers to move up to better-paying jobs. Fiscal and employment benefits are discussed further below.

Economic development policies are more likely to increase the total number of jobs in the local economy when these policies assist new businesses or business expansions that add to the local economy's "export-base" or substitute for local "imports." In this context, "exports" refers to goods or services sold outside the local jurisdiction, for example to residents or businesses in another U.S. city. "Imports" refers to goods or services purchased by local residents or businesses, but produced outside of that local jurisdiction. If the economic development policies encourage expansion of businesses whose increased sales neither increase the local area's exports nor substitute for imports, then these increased sales must come from reduced sales of other local businesses. With increased sales in assisted local businesses counter-balanced by reduced sales in other local businesses, significant increases in total local jobs are less likely (see caveats below).

The total increase in local jobs from assisting export-base or import-substituting businesses will be greater than the increase in jobs in assisted businesses because of multiplier effects. The expansion of assisted businesses will require inputs from other businesses, and some of these suppliers may be local businesses. In addition, the expansion of assisted businesses and their local suppliers will generate increased worker income, and some of this income will be spent on local retailers, causing local retailers to expand. Such multiplier effects will be larger under the following circumstances: if the local jurisdiction is larger, making it more likely that supplier or retailer demand can be satisfied locally; if the assisted businesses have stronger local supplier links, which is more likely for long-established businesses; or, if the workers in the assisted businesses are paid higher wages, increasing local retail demand. The size of multiplier effects can be estimated with econometric models. Local government managers should be skeptical of claims of multipliers greater than 2.5 (1.5 jobs created in suppliers and retailers due to one job created in assisted businesses), as multipliers greater than 2.5 require assisted businesses to have unusually strong local supplier links or unusually highly paid workers.



### Econometric Models

The best available summary of models for analyzing the economic and fiscal impact of new business on a local economy is provided by a 1999 report, *Evaluating Incentives*.<sup>1</sup> Any model of economic, employment, and fiscal impacts of new businesses must combine economic theory about local economies with area-specific information about the particular supplier linkages in the area. Two of the most prominent “economic impact” models—which provide estimates of effects of a new plant on area production and income—are the IMPLAN model and the REMI model. The results from economic impact models can then be used in a “fiscal impact” model. Such fiscal impact models require data or assumptions about how population growth responds to business growth, and about how the needs for services and infrastructure will respond to expanding business activity and population. The most prominent nationally available local fiscal impact model is the LOCI model developed at Georgia Tech. In addition, some states have their own models that can be used for economic or fiscal impact analysis, including the states of Maryland, New York, Oklahoma, and West Virginia. New York State’s economic impact analysis is particularly sophisticated and includes estimates of employment benefits.

---

<sup>1</sup>Kenneth Poole, George Erickcek, Donald Iannone, Nancy McCrea, and Pofen Salem, *Evaluating Business Development Incentives* (Washington, DC: National Association of State Development Agencies, 1999).

Should local economic developers prefer assisting businesses that “export” outside the local economy, or businesses that substitute for local “imports”? In theory, either approach can provide an equivalent boost to local jobs. In practice, it is easier to be deluded about whether a business expansion substitutes for imports. In addition, import substitution strategies that give preferential treatment to local suppliers can lead to these suppliers becoming less competitive in the export market.<sup>8</sup>

Assisting nonexport base firms can increase local wealth if such assistance leads to an increase in usage of land or labor that would otherwise be unemployable. For example, the economic development assistance could encourage the firm to use a polluted “brownfield” site that would otherwise go unused, or to hire disadvantaged persons who would otherwise remain unemployed. In these cases, even if the increased sales in the expanding firm come at the expense of other local firms, the use of “unemployable” land or labor will free up currently used land or labor for other uses. The greater availability of land and labor for business will encourage business expansion in export-base firms, with consequent multiplier effects on the local economy. However, it can be difficult to determine whether the land or labor used by the firm would otherwise be “unemployable.” Land or labor that is currently unused may have become employed anyway in the normal course of economic change. The greater the problems impeding the use of a land parcel or the employment of a worker, the more likely this land or worker would otherwise be unemployable.

The wealth of a local economy can also be expanded without any increase in exports or decrease in imports by increasing the local economy's productivity. An economic development policy that increases the productivity of assisted businesses (for example, by providing these businesses with information on how to better use new technologies) will increase local wealth if the value of the increased productivity exceeds the program's costs (for example, the costs of hiring consultants who have useful business advice about technology). One issue in productivity-enhancing policies is who benefits and who should pay. These programs' immediate benefits accrue to whomever's productivity is increased—that is, a business with increased productivity should reap increased profits. Because most economic development programs that increase productivity provide assistance to businesses, most benefits would seem to accrue to the business sector. This raises doubts about whether such programs should be subsidized by the general public, or by taxes or fees on business. A general public subsidy might make sense under any of the following conditions:

1. If the program affects enough businesses to significantly increase local competition in that industry. Under this condition, the program may increase quality and lower prices in that industry, shifting some benefits to local consumers.
2. If the program helps businesses or groups whose business success is socially beneficial, for example minorities or women. Some might argue that more small business success is inherently socially beneficial.
3. If the program enhances productivity of workers in many jobs, for example training workers in general skills. Under this condition, the program will increase wages.
4. If the program increases the productivity of assisted businesses by more than it costs, and the assisted businesses either "export" outside the local economy or substitute for

### **North Carolina's Customized Training Programs**

North Carolina is among the most active states in providing training programs that are customized to the needs of individual businesses.<sup>2</sup> The state annually provides training to a little less than 10 percent of its workers, at a cost per trainee of around \$140. These programs are designed as an incentive to attract new branch plants and encourage business expansions, but also encourage assisted businesses to hire more disadvantaged persons for entry-level jobs. The most intensive customized training is provided by the New and Expanding Industry Training program, under which community colleges provide customized training to firms that are creating at least 12 jobs in some industry that exports goods or services outside the state. The college places ads for new hires and screens trainees, the firm chooses trainees from among those screened, the firm provides training equipment while the community college provides facilities and trainers, and the firm decides which trainees are hired. More short-term training is provided by the Occupational Continuing Education program, under which community colleges offer occupational training at a state-subsidized fee. Customized training to a firm's needs can be provided if there are more than ten trainees from the firm, and 60 percent of OCE courses are arranged by employers. Case studies of North Carolina's programs suggest that the community colleges sometimes are able to get welfare mothers and other disadvantaged persons into industrial training programs that lead to their employment in manufacturing.<sup>3</sup>

<sup>2</sup>This sidebar is based on Timothy Bartik, *Jobs for the Poor* (Washington, D.C. and Kalamazoo, MI: Russell Sage Foundation and Upjohn Institute, 2001), pp. 259–260.

<sup>3</sup>Rosemary Batt and Paul Osterman, "Workplace Training Policy: Case Studies of State and Local Experiments" (Washington, DC: Economic Policy Institute, 1993, Working Paper 106).

local “imports.” Compared to financial incentives, such a program may boost the local economy at a lower cost.

**Fiscal benefits.** One rationale for public subsidy of economic development is possible fiscal benefits. New jobs will result in increased local profits, wages, sales, and property values, all of which will enhance local tax revenue. Some governments erroneously assume that this is the only fiscal effect of new jobs, for example Michigan does so in evaluating the fiscal effects of its tax incentives.<sup>9</sup> A better—but still incomplete—approach also includes the increase in public services and infrastructure that is directly required by the new or expanded businesses. Most studies suggests that at regular tax rates, the typical business generates significantly more state and local tax revenues than the public expenditures it requires—in one study, \$1.70 in taxes for every \$1 in required public expenditure.<sup>10</sup> However, the true fiscal impact of local economic development policies is more complicated than this analysis suggests. Additional factors must be considered to determine the true fiscal impact of local economic development.

- Factor 1: New business and new jobs will attract additional households, and the fiscal impact of new households must be considered. The typical household consumes more in public services than it pays in state and local taxes. This is less true of wealthy households than of low-income households, and less true of childless households than households that use public schools. Therefore, the fiscal benefits of economic development will be greater if more jobs go to current residents rather than in-migrating households, and greater if the in-migrants are upper income.
- Factor 2: The fiscal benefits of new business and new jobs will tend to be greater if one is only concerned with the fiscal well-being of the local government in which the business is located, as fiscal benefits of new business accrue to that local government, while fiscal costs of new households occur for other governmental units in the local labor market. In addition, much of the public service costs of new households are the costs of public education for additional students, and these costs will typically not be paid by the local government that attracts the business. From a national or even state perspective, considering the fiscal effects on all government jurisdictions is preferable. However, a financially hard-pressed local government will sometimes have to focus on its narrow fiscal self-interest.
- Factor 3: The fiscal benefits of economic development will be greater if it is possible to ignore effects on the need for additional infrastructure. If there is excess capacity in local infrastructure (for example, the local highway system can accommodate more cars without increased congestion) then additional infrastructure will not be required, and fiscal benefits will be greater. The need for additional infrastructure will be less apparent in analyses that consider one business expansion at a time, rather than the cumulative impact of many business expansions, as each project may appear to have a negligible impact on congestion in the use of local infrastructure even though the business expansions taken as a whole will strain local infrastructure. Another issue is whether the local government

is willing to accept some losses in public service quality that occur as infrastructure capacity is strained (for example, is the local government willing to accept some increases in travel time as local roads become more crowded). A fiscally troubled local government may downplay the congestion costs of additional business activity.

Factor 4: The net fiscal benefits of economic development assistance will be greater if in all cases the economic development assistance was decisive in inducing the new business activity. Otherwise, a comprehensive fiscal analysis will have to consider that in some cases the local economic development program has subsidized new or expanded business activity that would have occurred in the local area even without the program. If the new activity would have occurred anyway, the fiscal effects are clearly negative and equal to the subsidy cost. Such subsidies should be avoided, but this is easier said than done. Program managers will rarely know for certain which subsidies were decisive and which were not. A complete fiscal analysis will make some assumptions about what proportion of economic development subsidies were decisive, and weigh the fiscal benefits (if any) of such decisive subsidies against the costs of providing unneeded subsidies.

Evaluating the fiscal effects of economic development requires the use of an econometric model (see sidebar). But such a computer model only supplies a methodological approach; the actual fiscal effects depend on the jurisdiction's tax structure, the capacity of local infrastructure, and the particular project.

For a local government manager willing to adopt a short-run perspective, to only look at the well-being of his or her own jurisdiction, and able to ignore effects on local infrastructure, local economic development will often provide sizable fiscal benefits. On the other hand, if a local government manager adopts a long-run perspective, considers fiscal benefits to all local governments, and considers the true long-run costs of providing infrastructure services of a given quality, then the fiscal benefits of local economic development will depend on its "employment benefits"; that is, whether it raises employment rates and wages. Over the long run, most public finance studies suggest that local public services, including infrastructure, are provided at constant average costs beyond a modest population size; that is, the cost of providing a given quality of service to household and businesses is the same per household and business as the local area grows.<sup>11</sup> Thus, in the long run, if employment and population both increase by the same percentage, public service costs should also increase by the same percentage. If tax revenue went up by the same percentage, long-run fiscal benefits would be nil. However, tax revenue will increase more if local wages go up, and public service costs will increase less if population increases less than employment, which allows for fiscal

benefits if economic development raises wages and employment rates (the ratio of employment to population).

**Employment Benefits.**<sup>12</sup> The employment benefits from getting a new job for local residents are the wages paid for that job, minus whatever value the local resident places on their time while unemployed, a value which economists call the person's "reservation wage." Assuming that the local resident's non-employed time was involuntary—that is, they would have preferred being employed at their current market wage to being unemployed—then the difference between this market wage and the reservation wage is positive. In addition, local residents may benefit from economic development if it enables local residents who are already working to move up to a better paying job.

The benefits for an in-migrant who gets a new local job, even if the in-migrant was previously non-employed or employed at a lower wage, will generally be small. In-migrants by definition are individuals who are almost indifferent between staying where they are and moving to a new place, and in general these in-migrants have a choice of many areas. Providing more jobs in one local area cannot appreciably enlarge the opportunities facing migrants, given the many alternatives. Even without this economic development, migrants could have moved somewhere else and obtained a similar job. The available research suggests that for every ten jobs created in a local labor market, such as a metropolitan area, about eight end up going to persons who otherwise would have lived elsewhere, not to local residents.<sup>13</sup> This in-migration effect of new jobs enormously reduces the potential employment benefits from economic development.

In contrast, local residents have significant attachments to their home area, and therefore gain by having better local job opportunities. In the short run, these gains occur because faster local job growth enables local residents to get jobs that otherwise were unattainable, as local employers lower hiring requirements to fill job vacancies. In the long run, these short-run gains will persist because the newly employed or upgraded local residents will acquire better job skills, greater self-confidence, and a better reputation with other local employers, all of which will increase their long-run wages and employability.

These employment benefits accrue to local residents throughout a local labor market area, such as a metropolitan area, rather than residents of the jurisdiction that develops new jobs.<sup>14</sup> Most workers do not work in their neighborhood of residence.<sup>15</sup> Commuting spreads the effects of job creation throughout the local labor market, and even affects job opportunities and wages for workers who don't commute. For example, if new jobs in the suburbs go to suburbanites who previously commuted to the city, the resulting city vacancies will provide job opportunities for city residents who never commute to the suburbs. There are some benefits of having more jobs nearby;<sup>16</sup> however, job availability in the metropolitan area is more important than the number of nearby jobs in affecting demand for a person's labor.

Employment benefits of local job growth are sizable. An employment increase of 10 percent in a metropolitan area increases average real earnings in the metropolitan area by about 4 percent per person.<sup>17</sup> Half of this real earnings increase occurs because more local residents get jobs. The other half occurs because some workers get better-paying positions.

Local government managers can increase the employment benefits of local economic development in three ways:

1. Encourage businesses assisted through economic development programs to fill a higher proportion of their job vacancies with unemployed or underemployed local residents, through positive incentives such as providing better training to local job seekers, and helping to screen them. Many local governments have some requirement for local hiring for businesses assisted through economic development programs, but this requirement is seldom enforced because of fears that it could discourage economic development. A few cities, such as Portland (Oregon) with its now-defunct JobNet program, and Berkeley with its First Source program, have tried to design local hiring incentives that will be at least neutral in their economic development impact.<sup>18</sup> Studies of the low-wage job market suggest that many businesses have great difficulty finding productive workers. More than one-quarter of new hires are producing less than 75 percent of what the employer anticipated upon hiring after only six months into the job.<sup>19</sup> Partly as a result, many low-wage workers hired are quickly fired, with many studies finding turnover rates of over 50 percent after six months.<sup>20</sup> If local agencies can set up some process of training and referring qualified workers to assisted businesses, this may be viewed as a plus by the assisted businesses. Furthermore, the Portland and Berkeley programs both avoided coercion of employers: employers are required only to consider workers referred by these programs.

### **Berkeley's First Source Program<sup>4</sup>**

Begun in 1986, Berkeley's First Source Employment Program requires employers who have directly or indirectly received some assistance from the city to enter into "First Source" agreements promising to consider workers referred to the employers through the First Source Program from over 20 training providers and community groups. The First Source requirements apply for virtually any city assistance: city financing, city contracts, and city permits to build for new non-residential construction of over 7,500 square feet, with the last requirement applying to both the construction firm and the business tenants. On the other hand, the hiring is voluntary and the program works with employers to try to find workers who meet the employer's requirements. About 250 workers are hired annually through First Source, a sizable number for a city of 100,000. About four-fifths are minorities, three-fifths low income, and one-third are hired by employers that are not subject to First Source agreements. The program's structure gives it two groups whose interests it must serve: the disadvantaged jobseekers and employers seeking workers. Without the voluntary involvement of both groups, the program cannot generate a significant amount of hiring of the disadvantaged.

---

<sup>4</sup>For more on the First Source Program, see Frieda Molina, *Making Connections: A Study of Employment Linkage Programs* (Washington, DC: Center for Community Change, 1998).

2. Focus more economic development assistance on higher "wage premium" jobs, which are jobs that pay well relative to the skills required. Empirical studies indicate that growth in such jobs results in greater earnings benefits for local residents.<sup>21</sup>
3. Pursue economic development more aggressively if and when local unemployment rates are high. When local unemployment rates are high, the average unemployed worker is more desperate for a job, and the benefit from job growth is greater.

**Market failures.**<sup>22</sup> The productivity of local businesses may be efficiently increased if we can identify "market failures" in which inputs to business production are inefficiently provided, so that these inputs are not optimally supplied even though such supply would increase productivity by more than the input cost. These market failures may include the following:

- Information on how to improve business productivity, particularly basic information, may be insufficiently supplied by the private market. For example, businesses may have difficulty identifying a reliable consultant who can tell them how best to integrate the latest computers and telecommunications into their production process; the available information is often unreliable and self-serving, and evaluating the claims of different "experts" is difficult.
- Research and development in business, and particularly more fundamental R&D, may be underproduced because some benefits of R&D accrue to other businesses that imitate any successful breakthrough.
- Business capital may be insufficiently supplied because many regulations on capital markets inhibit loans to business ventures with high expected returns but high risks.
- The training of labor may be insufficiently provided by businesses because of fears that trained labor will move to another employer and, in some small businesses, difficulties in obtaining financing for the training investment.

- Land may not always be optimally provided to private businesses because land use is heavily regulated by zoning, and individual landowners may have market power to hold out against selling a land parcel to a developer seeking to assemble many parcels for a sizable business development.
- Public infrastructure may be underprovided to businesses—and households—without public intervention, because in many cases such infrastructure would simultaneously provide services to many users, and it may be difficult to fully charge for such usage.
- Business regulations, such as environmental laws, may be inefficient in the overall level of regulation, the flexibility of regulation in responding to specific cases, or the ease of businesses understanding the regulations. The last area is the least controversial for reform, because it involves no diminution of regulation’s benefits for the public.

These possible market failures only indicate that there may be benefits that exceed costs from some different arrangement. For public policy to help, we must be able to design and implement a government program that results in the input being more efficiently provided, through the government providing the input or encouraging private sector provision. In some cases, it may be impossible to set up such a program. But if such a program can be arranged, it gives the public sector another economic development tool to increase economic efficiency, and is a cost-effective way of assisting export-base businesses.

**Other benefits and costs.** In addition to employment and fiscal benefits, and benefits from overcoming market failures, other benefits and costs of local economic development deserve consideration. Local economic development will usually increase local housing prices, helping homeowners and other local landowners, but hurting renters. Local economic development may have negative environmental effects, such as increasing air or water pollution or solid waste problems, loss of greenspace amenities, increasing urban sprawl, increasing traffic congestion, and negative effects on the “character” of a place. Local economic development projects can be modified to minimize these effects or reverse them. Development efforts that seek to integrate such environmental considerations into the planning of economic development policies sometimes go under the label of “sustainable development.”<sup>23</sup>



### **Battle Creek Unlimited<sup>5</sup>**

Battle Creek Unlimited, a private, nonprofit organization sponsored by the city of Battle Creek, Michigan, was set up in 1971 to help revitalize a city economy that, during the 1960s and 1970s, lost nearly 10,000 export-based jobs. One of the economic losses was the closure of the Fort Custer military base, which was phased out by 1968. The city, through BCU, acquired over 3,000 acres of the former base. BCU used its control of this developable land, together with long-term promotion of Battle Creek to existing city businesses and new prospects from throughout the world, to attract over 70 companies and 7,000 jobs to what is now the largest industrial park in Michigan. A considerable part of this investment is Japanese auto suppliers. The success has led to a long-term financial base for BCU, which is largely financed by tax increment financing (TIF) on increases in property values at Fort Custer and other targeted sites. Perhaps as important, BCU's success has led to long-term political support and stable management of BCU, which is unusual in local economic development organizations.

### **Specific Types of Economic Development Programs**

This section discusses different types of economic development programs, organized by these programs' "targets": the types of firms (new branch plants, existing firms, small businesses, high tech), or the types of land being developed (polluted "brownfields," economically distressed neighborhoods, or downtowns).

**Attraction and Incentives.** A persistent goal of many local economic development efforts is to attract a large branch plant, paying good wages and with sizable multiplier effects on the local economy. This goal cannot be achieved for all American communities during the short run. There are an estimated 1,500 major expansions or relocations in the U.S. during a given year; an estimated 15,000 American economic development organizations are pursuing those 1,500 location decisions, a ten to one ratio.<sup>24</sup>

Attracting these branch plants with economic development incentives receives the most public attention. However, attraction involves a great deal more than incentives, and many of these nonincentive factors may be more important. The availability of land with appropriate infrastructure is always a critical location factor. Some of the most successful local economic development organizations have based their success on their control of desirable land (for an example, see the sidebar on Battle Creek Unlimited).

The availability of labor with appropriate skills at a reasonable wage rate is also important. Modest variations in wages or skills can offset the largest available incentives. For example, the most recent data suggests that the median state and local

---

<sup>5</sup> Based on James Hettinger and Janette Burland, "Battle Creek Military Base Conversion Process," Economic Development Commentary 19, number 2 (1995): 18–22. Also based on my conversations with informed observers.

incentive offered to a typical firm outside of enterprise zones, if calculated as an annual dollar equivalent per firm employee, is equal to \$218 in annual wages per worker, and the median incentive offer inside enterprise zones is equal to \$526 in annual wages per worker. The highest incentive offers, which in some state enterprise zones eliminate almost all state and local business taxes, amount to \$1,566 in annual wages per worker.<sup>25</sup> This highest incentive offer could be entirely offset by a competing area that had no incentives, but had labor that was 79 cents per hour cheaper in wages or had the equivalent in higher labor productivity. (A subsidy of \$1,566 annually per worker, divided by 2,000 annual work hours, is equal to 78 cents per hour of work.)

The more intangible services of good information and problem solving for business prospects can also have large effects on business location decisions. Large corporations are frequently seeking to locate a plant and get it running as quickly as possible. Providing reliable information on sites, and helping overcome problems with permits and regulations, can help attract business prospects by allowing them to save time. Such information and problem-solving services are frequently offered by local economic development organizations. According to the 1999–2000 ICMA survey, 72 percent of local governments offered zoning and permit assistance to attract businesses, 39 percent offered one-stop permit issuance, and 23 percent offered “regulatory flexibility.”

Marketing efforts can also affect business location decisions. Marketing consultants suggest that communities develop a marketing approach that emphasizes some special comparative advantage of the community that is relevant to business needs.<sup>26</sup> Marketing to site consultants as well as business prospects is also important, because large corporations locating a new plant now use site consultants over 50 percent of the time.<sup>27</sup> Local communities are actively engaged in marketing efforts, including preparing promotional materials (82 percent of all the communities surveyed), developing a web site on the community’s advantages for businesses (70 percent), calling on business prospects (52 percent), media advertising (44 percent), and direct mail (40 percent).<sup>28</sup> Web sites have probably become even more important since this 2000 survey, with an expectation by consultants and business prospects that areas will have reliable and relevant information available at a local Web site.<sup>29</sup>

However, great resources continue to be devoted to economic development incentives, and these incentives do affect business locations, albeit at a high price per job created. The national total for all state and local incentives for economic development is probably over \$17 billion per year.<sup>30</sup> About two-thirds of these incentives are financial incentives (tax incentives, loans, grants, and loan guarantees); the other third of incentives consist of customized job training (21 percent of the incentive package for the typical firm and state) and special provision of infrastructure (13 percent of the incentive package).<sup>31</sup> The 1999–2000 ICMA survey indicated that 74 percent of local governments offered infrastructure improvements as an incentive, but only 36 percent offered training support and 16 percent offered employee screening. (These training incentives tend to be state funded but delivered by local community colleges.) An increasing and expensive trend in some localities is the offering of free or reduced-price land (offered by 39 percent of all local communities), or even free or reduced-price buildings (10 percent of all communities).

A recent trend in incentives is the increased use of “tax increment financing,” which can be viewed as a financial incentive or infrastructure incentive. Under tax increment financing, the increased taxes on a developed parcel of land are not put in the general fund of the different taxing jurisdictions, but instead are devoted to special services related to the designated improvement district. One common use of TIFs is to pay off bonds for infrastructure development in the TIF district. One advantage of TIFs for the sponsoring local government is that typically the TIF district captures all increased taxes that would have accrued to all the overlapping taxing districts, including school districts, the county government, and any special purpose governmental units. TIFs have now been authorized in 48 states.<sup>32</sup> According to the ICMA survey, 50 percent of local communities have used TIFs.

The available research literature suggests that economic development incentives are likely to have modest but possibly important effects on business location decisions across state or metropolitan areas, but at a large cost per job induced to locate in a state or metropolitan area. This research evidence largely does not rely on direct estimates of the location effects of incentives, as such studies are difficult because of the lack of good data over time on incentives. The relevant

research evidence is the extensive research literature on the effects of state and local taxes on business location in different state or metropolitan areas. This literature has been most comprehensively reviewed by Timothy Bartik and Michael Wasylenko.<sup>33</sup> It suggests that a 10 percent reduction in state and local business taxes will increase the long-run business activity and employment in a state or metropolitan area, or the number of new plants choosing the state or metropolitan area, by about 2 or 3 percent. Calculations show that this implies that creating a new job in a state or metropolitan area requires forgoing about \$7,000 annually in business tax revenue.<sup>34</sup> This calculation accounts for both the revenue lost from business tax reductions on the business activity that would have occurred in the state or metropolitan area anyway, as well as revenue gained on induced business activity.

Assuming that economic development incentives affect the targeted firms about as much as business tax reductions affect all firms, economic development incentives should have a cost per job created of about \$7,000 per year, even allowing for the revenue gained from new business activity. This is a large cost because even though the typical job will pay much more than \$7,000 per year, the employment benefits from creating a job will typically be much less than what a job pays. As mentioned before, a considerable portion of new jobs go to in-migrants, providing slight employment benefits. In addition, the benefits to a local resident who becomes employed presumably are somewhat less than their wage, assuming that the individual places some value on their time when they are not employed.

Incentives have much larger effects on location decisions among different communities within a metropolitan area than on location decisions among different states or metropolitan areas. The reason for the larger effects is that different locations within the same metropolitan area are frequently good substitutes from a business perspective, offering similar access to labor, resources, and markets. In contrast, different locations across states or metropolitan areas may not be as good substitutes, having very different labor costs and costs of accessing markets and resources. As a result, a smaller dollar amount of incentives is needed to tip the location decision among different communities within a metropolitan area than among different metropolitan areas or states. The available research

evidence suggests that tax or incentive differentials within a metropolitan area are likely to have effects on location decisions so large that it is possible that a local community, “X,” that offered incentives could gain tax revenue on net, assuming that no other local communities responded to the local community’s incentive offer.<sup>35</sup> That is, if no other local communities match community X’s incentive offer, the local community will gain enough additional business activity that the increased tax revenue from this business activity will more than offset the incentive costs. In the real world, other communities will match community X’s incentives. The net result is that all communities in the metropolitan area will offer incentives, with modest effects on the metropolitan area’s overall business activity, at a \$7,000 annual cost per job created, and with no competitive advantage for community X. (The implications of this for organizing economic development will be considered later.)

Are there ways to increase the cost-effectiveness of incentives? One idea is to offer more of the incentive up front. The available evidence suggests that the businesspersons who make location decisions have high discount rates, 12 percent in real terms annually.<sup>36</sup> For the average executive locating a new plant, seeking to go into production quickly and meet profit targets, a property tax abatement ten years from now is close to irrelevant; what matters is the plant’s profitability in the short- and medium run. Upfront incentives will have greater effects in tipping the location decision.<sup>37</sup> Offering more incentives up front also forces local government managers to deal with the fiscal costs of incentives themselves rather than passing costs on to their successors.

If incentives are offered more up front, it becomes more important to consider what to do if the plant subsequently relocates or closes. One option is to combine incentives with legally binding “clawback” agreements, under which a portion of the up front incentive will be recovered from the company if it relocates or closes the plant, or does not meet other “performance goals.” The number of states with clawback laws for some economic development incentives increased from 9 to 17 from 1992 to 2002, and it is generally believed that local communities have also increased their use of clawbacks.<sup>38</sup> According to the 1999 ICMA survey, 59 percent of local governments “always” require a performance agreement as a condition for providing business incentives, and 30 percent

“sometimes” require such a performance agreement. Even with a clawback agreement, some incentive costs may often be unrecoverable. This problem can be dealt with by shifting the incentive mix towards training and infrastructure incentives, which will remain behind if the company is gone. The remaining infrastructure and trained workers will help a local area attract new business activity.

Another option is for local areas to use incentives more selectively. Local communities should consider restricting the use of large incentives to periods during which local unemployment is high. Incentives can also be targeted on businesses likely to offer the greatest economic benefits, such as firms that pay higher wages and are likely to hire local workers who would otherwise not be employed, and firms that are more likely to use local suppliers, with consequent higher multiplier effects. In addition, incentives can be targeted on businesses offering the lowest environmental costs or greatest environmental benefits, such as businesses using brownfield sites or businesses with minimal outputs of pollutants. Finally, local communities can attempt to restrict incentives to firms for which the incentive will be decisive in tipping the location decision. The problem with this type of targeting is that the business has much more information about its location options and profitability than the local community does. Unless the community engages in a large number of these negotiations with firms, or has help from a state agency that frequently engages in such negotiations, trying to restrict incentives to cases where the incentive will be decisive is close to impossible. However, in some states, large discretionary incentive programs are restricted to firms for which the incentive is decisive, with requirements for documentation from the firm. For example, the Michigan Economic Growth Authority (MEGA) tax credit program requires applicant firms to present financial data to the state showing that the credit is needed for a Michigan site to be superior to a non-Michigan site.<sup>39</sup>

**Business Retention.** A focus on business retention makes sense for at least two reasons. First, the decisions of existing local businesses about expansion, contraction, or closing can have huge effects on a local economy’s export base. During a typical one year period, about one-tenth of all manufacturing jobs are destroyed by plant contractions and closings, and about one-tenth of total manufacturing employment is added by plant openings and expansions.<sup>40</sup> Of the jobs added by

plant openings and expansions during a one year period, about 85 percent are due to existing firms expanding. Many of these plant expansions and contractions are large: almost three-fifths of the jobs created in manufacturing by expansions during a typical one year period are due to a business establishment that is increasing its employment by 25 percent or more; about two-thirds of the jobs destroyed in manufacturing by plants closing or contracting are due to a business establishment that is decreasing its employment by 25 percent or more.<sup>41</sup> Because much of employment change is due to large expansion and contraction decisions, it may be feasible to have significant effects on local employment by affecting a modest number of decisions by local businesses.

Second, local businesses are tied to the local area by the advantages of using their customary local labor force, local suppliers, and other local institutions. Attraction programs run the risk of wasting economic development resources on firms for which the local area has no chance, whereas this is rarely true in retention programs. Because existing firms, compared to attracted firms, use more local suppliers and know better how to hire locally, an output increase by a local firm, compared to an equal-sized output increase of an attracted firm, is likely to have larger multiplier effects on the local economy, more employment benefits for local residents, and more favorable fiscal benefits because of lower in-migration.

Retention programs involve getting information on the needs of local businesses, and then encouraging government actions to better meet those needs and increase local benefits. Retention programs vary in the degree of government activism, ranging from relatively low government activism in business visitation and surveying programs, somewhat larger government activism in manufacturing or business extension programs, and a larger strategic role for government in working with business clusters and networks. All three of these approaches can be pursued simultaneously, and often overlap with each other in practice.

Business visitation and surveying programs gather information from businesses using mail surveys, visits conducted by trained volunteers, visits conducted by permanent paid economic development staff, or some combination of all three.<sup>42</sup> Programs frequently are run in a high profile way, because publicity can give a local community a more business friendly image. The surveys

and visits may include all local businesses or target some sector of particular interest, such as businesses above a particular size threshold, export-based businesses, or businesses in some industry “cluster” (see below for more on clusters). Visits and surveys typically focus on a broad range of issues, such as the local business climate, the quality or availability of local labor, the business’s need for help with exporting or government procurement, financing problems, and local regulations. Effective and timely follow-up to business visitation and surveying is essential for such programs to have more than a short term P.R. effect on local economic development. Local economic development staff must seek to address the individual problems of specific businesses, and must use the information to identify local policies that might need to be reconsidered. Business visitation and surveying programs are common: according to the 1999–2000 ICMA survey, 74 percent of the chief administrative officers of local governments said they had local government representatives call on local business in order to improve business retention, 60 percent said they surveyed local businesses to improve business retention, and 22 percent offered an “ombudsmen” program to retain local businesses by helping overcome problems with local government regulations or other issues.

Business extension services and manufacturing extension services provide low-cost general consulting advice, and some longer-term consulting advice, mostly to small- and medium-sized enterprises, along with some referrals to private consulting firms. The advice provided includes a wide range of business issues, such as technology improvement, workforce development, management improvement, and marketing planning. As mentioned above, there may be some market failures in private information markets because it is difficult for businesses that lack information to find consultants they know they can trust. Extension services can play the role of both a trusted advisor and an honest broker to private consulting services. The market failure in information services is most acute for small- and medium-sized enterprises, which may be behind in adopting new technology or management and training workers to use it.

Extension services tend to be offered by regionwide or statewide institutions. The level of staff expertise required for such institutions is beyond what a small local community can acquire on



### **Industrial Resource Centers<sup>6</sup>**

Begun in 1988 by the state of Pennsylvania, the Industrial Resource Center organization now consists of seven regional centers. Each center provides small- and medium-sized manufacturers with advice from the center itself, or third party referrals by the center, on a wide variety of issues, including human resources, business management and business systems, product quality, process improvements, and market development. Eighty-six percent of the assisted manufacturers have fewer than 250 employees. Half of the “interventions” with firms require less than eight hours of time of IRC staff, while one-quarter require more than 40 hours of time of IRC staff. More IRC staff time is required when the firm’s problem cannot be readily addressed by private consultants or other third parties. Sixty percent of IRC interventions involve third parties, typically consultants, but also other state and local economic development organizations, universities, and community colleges. The seven IRCs together have over 1,000 “engagements” per year. Some of these involve services given to more than one firm at a time, for example, training sessions on ISO 9000 standards. The IRC program receives funding from the state government, the federal government through the Manufacturing Extension Partnership program, and client fees.

its own. Extension services are sometimes funded by state governments and, since 1989, have been funded by the Manufacturing Extension Partnership (MEP) of the National Institute for Standards and Technology (NIST). Extension services typically also receive support from business user fees, which provide a “market test” of these services’ usefulness.

Evaluations suggest that manufacturing extension services are effective in improving business productivity. Some studies have surveyed business clients of these services, asking how the assistance affected the firm. About 64 percent of surveyed business clients of extension services funded by MEP reported that the assistance had led to productivity improvements.<sup>43</sup> The average business client reported that this assistance led to sales increases of \$143,000 and cost savings of \$50,000.<sup>44</sup> In addition, several well-designed studies have evaluated manufacturing extension services by comparing the performance of assisted businesses to similar unassisted businesses.<sup>45</sup> For example, a study of the seven regional Industrial Resource Centers funded by the state of Pennsylvania estimates that the IRC services increased the annual productivity growth of assisted firms by 3.6 percent to 5.0 percent, compared to unassisted firms.<sup>46</sup>

The design of business extension services may affect the types of economic development benefits they can deliver. Some services may emphasize productivity improvements by improving technology and management, which may reduce employment at assisted firms. For example, the study of IRC suggests that assisted firms’ output was increased by 1.9 to 4.1 percent annually by the

---

<sup>6</sup>This description is based on Eric Oldsman and Jack Russell, “The Industrial Resource Center Program: Assessing the Record and Charting the Future,” (unpublished report prepared for state of Pennsylvania, 1999).

program. Because this effect is less than the labor productivity increase, this implies that the program reduces employment at assisted firms compared to what it otherwise would be. This implication may be misleading because the study does not account for any IRC effects on the survival or relocation of assisted firms; if some of these firms would have otherwise gone out of business or left the state, then the overall effects of IRC on Pennsylvania employment in assisted firms may be positive. In addition, the increase in output in assisted firms will have multiplier effects on the local economy, increasing employment in local suppliers and retailers.<sup>47</sup> However, productivity improvement at assisted firms may reduce somewhat the benefits of IRC-type programs for the unemployed. The case for such productivity-focused programs may have to rely more on their fiscal benefits (positive according to the IRC evaluation) and wage increases due to these productivity improvements.

Other designs for business extension services may provide more employment benefits for the local unemployed. Some extension services combine advice to existing local businesses on management and technology issues with efforts to link these businesses with the local unemployed. For example, the WIRE-Net program on the west side of Cleveland provides area manufacturers a package of assistance that includes help with technology and management, but also with access to a “job candidate bank” of local residents qualified for entry-level jobs.

“Clusters” and “networks” are both currently “hot” terms in local economic development policy.<sup>48</sup> The more recent

#### **WIRE-Net<sup>7</sup>**

WIRE-Net (Westside Industrial Retention and Expansion Network) was started in 1988 by four Cleveland community development corporations (CDCs) to improve the retention of manufacturing businesses, especially manufacturers with fewer than 100 employees, on Cleveland's westside, and to increase the employment of neighborhood residents in these jobs. WIRE-Net's services target the 300 Westside manufacturers that together employ over 10,000 workers. These services include: consulting help and referrals on business management; helping manufacturers find new sites in the neighborhood; and lobbying the city for improved infrastructure and services. WIRE-Net has a “Hire Locally” program to help firms find qualified local residents for job vacancies. WIRE-Net also runs a Precision Machining Training program to help local residents meet the skill needs of local manufacturers. During a typical year, WIRE-Net assists about 1 in 20 of the area's manufacturers, that together employ about 1 in 12 of the area's manufacturing employees. Its job placement/training programs are associated with job placements each year that comprise one percent of the area's manufacturing employment. According to the WIRE-Net staff and area firms, WIRE-Net's most significant programs in encouraging job retention are its efforts to help manufacturers find and get approval for new sites in the neighborhood, and its Hire Locally program. Funding for WIRE-Net is provided by the city of Cleveland, the state of Ohio, federal agencies, Cleveland foundations, charitable donations, and membership fees from 150 Westside manufacturers.

---

<sup>7</sup>This description is largely based on Neil Mayer, *Saving and Creating Good Jobs: A Study of Industrial Retention and Expansion Programs* (Washington, DC: Center for Community Change, 1998). It was updated based on the WIRE-Net web site at [www.wire-net.org](http://www.wire-net.org).

terminology, “clusters,” refers to the notion that local areas may specialize in a particular industry or related industries, and the business suppliers to these industries. The distinguishing feature of a cluster is that there are extensive flows of workers, and information about technology and other business issues, across the firms in a cluster, and this both provides an incentive for these firms to cluster, as well as some common interests of these firms in the quality of specific types of local labor and specific sources of local information. A variety of consulting firms will help local economic development organizations to identify local clusters and their characteristics. The somewhat older term, “network,” refers to formal arrangements between firms in a local economy to cooperate in some endeavor of mutual benefit, such as firms in the same industry cooperating in sponsoring a training program at a local community college, or cooperative efforts by microenterprises to share marketing or shipping expenses. Both the “cluster” and “network” terms are closely related to a much older concept in regional economics, that of “agglomeration economies” due to “localization effects.” Regional economic analysis has traditionally theorized that the enormous specialization of industries that we observe—from autos in Detroit to software in Silicon Valley—must occur because the concentration of many firms in the same industry in the same local economy offers enormous cost advantages. These cost advantages are believed to result from better access to more specialized skilled labor, more specialized suppliers, and more specialized information about industry innovations.

Clusters occur on their own: is there anything local policymakers can do to improve on what happens naturally? The argument by advocates for “cluster policy” is that thinking in terms of clusters can lead local economic development organizations to several policy interventions that may help the local economy. First, and by far the most important, is that once a local economic development organization has understood a local cluster, it can work with this cluster and local educational and training organizations to improve the availability of “medium-skilled” labor for this cluster. The availability of specialized medium-skilled labor is one of the most important reasons for clusters to occur, and limits on this availability is an important constraint on the growth and development of a cluster.<sup>49</sup> Very low-skilled labor is available in most locations, and high-skilled

labor is mobile, but medium-skilled labor is often both scarce and less mobile. Government has traditionally played a role in providing education and training, in part because firms underinvest in training due to fears that other employers may “steal” their trained workers, and in part because there are economies of scale in providing training. But this publicly supported education and training is sometimes not aimed at the skills in demand by local employers, including local employers in clusters. One way to deal with this problem is to get a cluster’s employers into closer communication with local education and training institutions to ensure that the relevant skills are well taught. An improved local training program to support a cluster can try to increase the employment benefits of the cluster by targeting some of the training slots on persons who are more difficult to employ. Such targeting must be accompanied by rigorous enough standards that training graduates are in fact qualified, or the program will lose the confidence of employers.

Second, sometimes clusters may considerably improve their competitiveness because of public investments in local research institutions. For example, an industry cluster may benefit if a center of excellence in research related to that industry is created at a local public university.

Third, in some cases a cluster may benefit from formal networking arrangements, which may be facilitated by local economic development organizations. In addition to advocating for improved training programs and local research support, such networks may cooperate in working on marketing, tax, and regulatory issues.

#### **Mine Maintenance Training Program<sup>8</sup>**

Since the late 1980s, Great Basin College has run a cooperative education/training program with a cluster of gold mining companies in northeastern Nevada. This area of Nevada is the third largest gold producing area of the world. The industry has often been short of skilled workers in diesel technology, industrial plant technology, electrical technology, and welding. Under the program, the Manpower Training Cooperative (a nonprofit coordinating body of area mining companies) provides scholarships to prospective employees, typically high school seniors. Students work full time for a summer at one of the participating companies, and then get a scholarship to Great Basin College to take an intensive year-long course of study that gets them an associates’ degree within one year, and skills in a mining-related area. This design gets students into the workplace in less time than was previously the case, and responds to the desire of the mining industry cluster to reduce the length of training. Program instructors have mining-related backgrounds, and industry committees advise on course design. The mining industry cluster has also donated mining-related equipment to the college to help support the program. During a typical year, 85 percent of program graduates get a program-related job. Surveys of cluster firms report high satisfaction with the skills of program graduates.

---

<sup>8</sup>This description is based on a case study of the program, available at the web site of Regional Technology Strategies, Inc. at <http://www.rtsinc.org/benchmark/profiles/profile16.php4>.

Finally, it has been argued that in some cases local economic development organizations may encourage the formation of new clusters through their various economic development programs, including attraction and new firm creation programs.<sup>50</sup> For example, perhaps a current industry cluster is declining, and there is no feasible policy to arrest this decline. A local economic development organization may encourage new branch plants and new start-ups that use the types of workers and managers left behind by the old cluster, and this process may eventually lead to a new cluster.

The challenge to cluster policy is to minimize the downside risk of being wrong. It is difficult to predict the longer term future of a local economy's clusters. Perhaps a particular local cluster is doomed, and investments in local training programs and research infrastructure that are too specialized to that cluster will be wasted. Perhaps the potential new cluster that the local economic development organization is trying to create will not be viable. Cluster investments should ideally be designed so that these investments can be adapted to the future needs of the local economy, even if the targeted cluster does not develop as expected.

**New business development.** An economic development strategy that emphasizes new small businesses has been rationalized by the belief that entrepreneurship creates a large proportion of new jobs. Although some such statistics have been exaggerated<sup>51</sup>, it is true that during a typical one-year period, new firms with less than 20 employees create jobs that are slightly less than 2 percent of existing employment.<sup>52</sup> But will increases in small business start-ups expand the local economy? Small businesses disproportionately sell locally. In many cases, the sales of new small businesses reduce sales of other local businesses, with little net effect on the size of the local economy. Even if the new small business sells locally, it may still expand the local economy if these sales replace "imports." The new small businesses may also expand the local economy by hiring persons who are hard to employ; this is one rationale for aid to new minority businesses, which may be more likely to hire nonemployed minorities. Support for new small businesses may also be rationalized as human capital development. Helping individuals become entrepreneurs develops a type of human skill. Becoming an entrepreneur sometimes does not increase a person's income,<sup>53</sup> but may offer non-pecuniary benefits. This non-pecuniary benefit may justify some programs to develop new small

businesses, although if the local economy does not expand as a result, perhaps these programs should be paid for by successful entrepreneurs rather than the general public. For entrepreneurs from disadvantaged groups, public support may be justified to increase social equity.

Programs for new small businesses include entrepreneurship training, small business advice, business incubators, and capital market programs. Entrepreneurship training programs provide training in developing business, marketing and financing plans. This training is often aimed at disadvantaged groups, such as the unemployed, women, and minorities. Rigorous evaluations suggest that these programs increase business start-ups. One study examined the effects of entrepreneurship training for persons receiving unemployment benefits. Recipients of unemployment benefits were invited to orientations explaining the entrepreneurship training program.<sup>54</sup> The 4 percent of UI recipients who expressed interest in such training were then randomly assigned to a treatment group that received training and a control group that did not. Sixty percent of the treatment group ended up with some self-employment experience, compared to 44 percent of the control group. Because the treatment group and control group should be the same on average, we can be confident that, except for random noise, the 16 percent differential in self-employment experience is due to the program. Note that a program manager who claimed credit for all business activity associated with his/her program would claim credit for the 60 percent of the treatment group that entered self-employment, even though three-fourths of these entrepreneurs would have started up a business anyway. Note also that nothing in this evaluation tells us whether these additional entrepreneurs boosted their local economies by expanding exports or substituting for imports.

Small business advice is most prominently provided in the United States by Small Business Development Centers. These over 1,000 centers and subcenters are financially supported by the federal Small Business Administration (\$88 million in fiscal year 2002, about half of SBDC funding), with the other half of funding from state and local sources.<sup>55</sup> SBDCs provide counseling to small businesses on business development issues, as well as training in start-up and operation. Around a quarter million businesses or persons annually receive individual counseling from SBDCs (three-fourths of counseling participants are existing businesses, the other one-fourth hope to start a

business), and about one-third of a million persons receive business training (70 percent of these do not operate a business, and the other 30 percent already own a business).<sup>56</sup> Studies suggest that SBDCs' advice is useful.<sup>57</sup> These studies rely on surveys asking clients the impact of SBDC assistance. Even if SBDCs help their clients, further information is needed to see if SBDCs boost the local economy by reducing local imports, increasing local exports, or hiring difficult-to-employ labor. Local governments can affect SBDC operation by providing funding and encouraging targets or services that provide greater social benefits to the local area.

Business incubators provide start-up firms with cheap space, shared office support, and business development advice. There were an estimated 950 business incubators in the United States as of 2002, compared to only 12 in 1980.<sup>58</sup> Eighty-five percent of incubators are nonprofit, whereas 15 percent are for-profit, with the nonprofit incubators providing more intense services.<sup>59</sup> Most nonprofit incubators require continued operating subsidies. Forty percent of incubators focus on technology-oriented businesses, 30 percent are mixed-use, and the remainder have other areas of focus.<sup>60</sup> Evaluations suggest incubator assistance helps their clients. About two-thirds of incubator clients said that the incubator assistance was "important" or "very important" to their business success; finding non-incubator firms whose performance can be compared to incubator firms has been difficult.<sup>61</sup> Even if incubators help their tenants, does this boost the local economy? Or do incubators reduce employment in non-incubator firms?

Capital market programs can increase the supply of capital to new small businesses using several methods. Direct loans to small businesses from local revolving loan funds (RLFs), created with public subsidy, are the most prevalent and growing method. The RLF industry has an estimated \$8 billion in assets.<sup>62</sup> Many RLFs were originally capitalized with grants from federal agencies, such as the Economic Development Administration or the Department of Housing and Urban Development, but increasingly RLFs receive investments from state governments and banks. Sometimes new nonprofit or for-profit organizations are created to provide capital to new small businesses. For example, business development financial institutions (BDFIs) provide loans or investment in new small business, and are supported with deposits or investments from foundations

or the government, with the investors/depositors in BDFIs willing to accept below-market rates of return.<sup>63</sup> Capital can also be provided to new small businesses by guarantees or subsidies to encourage private for-profit financial institutions to expand their financing of small businesses. The most long-standing example of this approach is the United States' Small Business Administration's (SBA) program to guarantee loans made by financial institutions to small businesses. A more recent and growing approach is Capital Access Programs, under which 20 states and two city governments now subsidize a "loan loss reserve" for banks lending to businesses with above-normal risk.<sup>64</sup> Capital market programs also differ in the type of financing provided. Most programs seek to expand loans, but some programs have expanded the availability of venture capital and other forms of equity capital. For example, one report did 23 case studies of attempts to use public subsidies to expand venture capital into rural areas.<sup>65</sup> These programs sometimes are publicly funded and managed, and other times put public funds into privately managed venture capital organizations.

As with other small business programs, one issue in capital market programs is whether increased activity by assisted businesses reduces the activity of other local businesses. Another important issue is whether these capital market programs are able to provide financing to projects that are too risky to receive normal private market financing, but not so risky as to outweigh the social benefits from a larger local economy or greater opportunities for entrepreneurship.<sup>66</sup> Identifying such business projects requires skill in acquiring information in individual businesses cases and making sound judgments. Even when the government staff running such programs has relevant prior experience and skills, political pressures make it difficult to appropriately manage capital market programs. Political pressures can lead governments to avoid all risk (who wants to take the political heat for a loss?), which is inappropriate because non-risky loans can be made by the private sector. Political pressures can also result in financing businesses with political clout. Setting up independent financial entities, or subsidizing private sector financing, reduces these political problems. But these approaches face a challenge in getting the incentives right, so that these independent entities will use their subsidies to make the right kind of loan or investment, with above-market risks justified by the social benefits. Subsidies and guarantees for financing can be



### Capital Access Programs<sup>9</sup>

Since the first Capital Access Program (CAP) was begun by the state of Michigan in 1986, CAPs have spread to 20 states and two cities. A CAP program is designed to encourage banks to make business loans that are too risky to make under normal bank lending rules, but not excessively risky. Under a CAP, banks that make business loans under the program contribute 3% to 7% of the value of the loan, usually charged as points to the business borrower, into a bank-specific loan loss reserve fund that can only be used to cover losses from the bank's CAP loans, and the government contributes a matching percentage to the bank's CAP loss reserve fund. In a competitive banking market, banks are unable to put normally bankable business borrowers into the program, as these borrowers can go to other banks that will not charge the extra points. But banks are liable for losses on their CAP loans that exceed the bank's loan loss reserve fund, so banks will not want to make loans with an expected loss rate greater than 6 to 14 percent. Unlike government loan guarantees, banks under a CAP program are liable for excessive losses, whereas the government's exposure is limited to its reserve fund contributions. Banks through CAPs are making over \$200 million in loans per year. The cumulative loan losses on CAP are 3.7 percent of cumulative loan volume, indicating that CAP is inducing banks to make business loans of higher risk, but not above the program's targeted risk range. Public contributions to CAPs are only 4.3 percent of cumulative loan volume, suggesting that each government dollar is leveraging \$23 of additional business loans.

<sup>9</sup>The statistics and description of CAPs given here are largely based on Alan Berube, "Capital Access Programs: A Summary of Nationwide Performance," January 2001 report, U.S. Department of the Treasury.

used by private organizations to transfer the costs of their bad judgments to the public. Perhaps the most successful approach to getting the incentives right has been that of Capital Access Programs, because these programs subsidize risk-taking, but only to a limited degree.

There is no rigorous evaluation of capital market programs because it is difficult to identify companies that don't receive financing that are comparable to businesses that do receive financing. The financing process is intended to select businesses that have better chances to succeed, and this selection uses information unavailable to the researcher and is therefore impossible to use in matching financed businesses with a control group. Some evaluation results are positive. SBA loan guarantees go to firms that grow faster than similar-looking firms that do not receive such guarantees.<sup>67</sup> Revolving loan funds (RLFs) have a default rate of 5 to 15 percent, which suggests that the industry serves firms that would be unlikely to receive bank financing.<sup>68</sup> On the other hand, although counties with higher growth of RLFs have faster employment growth than counties with slower RLF growth, the magnitude of the effects imply that less than one in ten RLF loans encourage new business activity in the county.<sup>69</sup> Case studies of BDFIs suggest that these organizations may promote modest employment growth in depressed communities.<sup>70</sup> Data on Capital Access Programs suggest that these programs provide financing that is above normal market risk, but not excessively risky.

**High technology development.**<sup>71</sup> High technology industry can be defined many ways, but is usually defined as industries, both

manufacturing and nonmanufacturing, that produce goods or services or use production processes that involve intensive use of new scientific and technical knowledge.<sup>72</sup> Many local governments are interested in high tech development. Although only one-fifth of local government administrators surveyed reported that the local area had attracted a lot of high tech in the past, over half said that high tech was an area they were focusing on and wanted to attract more of in the future.<sup>73</sup>

A focus on high technology makes some sense because it is expected to be a high growth area. According to the U.S. Bureau of Labor Statistics, future high tech employment growth is expected to be over 50 percent greater than average employment growth for all industries, and high tech output growth is expected to be over twice the all-industry average.<sup>74</sup> If we include jobs created in supplier industries when high tech expands, the growth of high tech industries is expected to generate a little more than one-quarter of net new jobs in the U.S. economy. High tech industries also pay more than the all-industry average, although they also have higher requirements for educational credentials. Finally, many high tech firms have fewer environmental pollution issues than many non-high-tech manufacturing firms.

What can local economic development programs do if they wish to encourage high tech development? All the economic development programs in this chapter can be used. Recruitment programs can be targeted at high tech industries. Over 130 research parks exist in the United States.<sup>75</sup> Much extension service advice is technology-related and useful to small high tech firms. Many “clusters” are high tech. Policies to foster new business growth can focus on high tech businesses; for example, 40 percent of business incubators have a high tech focus.<sup>76</sup>

So what, if anything, differentiates high tech development from general economic development efforts? The differentiation is the distinct needs of high tech industries due to their reliance on significant inputs of knowledge. High tech growth depends more on having access to the knowledge produced in universities. In addition, high tech growth depends more on being able to hire and keep personnel who have advanced skills. High tech industries will be more sensitive to the quality of local universities, both as providers of knowledge and educators of very high skilled workers. High tech industries may also be more sensitive to the local quality of life, so that very

high skilled workers from elsewhere can be hired.<sup>77</sup> High tech industries also have some special infrastructure needs, such as broadband telecommunications. Finally, high tech goods or services frequently require a longer development time than non-high-tech goods or services, so high tech development requires some ability to generate equity capital or other “patient capital.”

Many of these sources of high tech growth require expensive investments that go beyond what most local governments can do on their own. What can local governments do to play a role in promoting high tech development? First, local governments can encourage a realistic analysis to see if the local area has any comparative advantage in high tech clusters, as shown by the performance of current local firms in those clusters, as a basis for future developments. Not every local area needs to be imitating Silicon Valley or doing biotechnology, and most local areas that try will fail.

Second, local governments can encourage the state government to develop research centers at local universities that are consistent with local high tech clusters. These university centers should go beyond basic research to support technology transfer to local industries.

Third, local governments should try to improve amenities that are relevant to high tech personnel. For example, high tech personnel may be attracted to a local area if local high schools have a math and science center for academically talented students.

Fourth, local governments should work with local universities and other institutions to attract venture capital to the local area. Such efforts might include lobbying for state funding to provide equity investments in the local area’s cluster, or setting up programs to link local high tech ventures with wealthy local investors.

Fifth, in rural areas, local governments should try to aggregate the broadband demands of local users in order to attract broadband investment by telecommunication companies. The alternative of direct public investment in such infrastructure is expensive and risky, given rapidly changing telecommunications technology.

Finally, local efforts to promote high tech should be accompanied by local training programs for entry level jobs in high tech industries and their suppliers. High tech industries will employ

many in-migrants or highly-educated local residents. Special efforts to target entry level jobs on local residents who need jobs the most will broaden high tech's employment benefits.

Few evaluations have been done of high tech strategies for local economic development. One evaluation of the Ben Franklin Technology Partners (BFTP), a system of regional centers in Pennsylvania, indicated that the BFTP's investments in start-up firms significantly increased their employment growth relative to similar firms without such investments by five employees per year.<sup>78</sup> A case study from San Diego presents evidence from interviews that San Diego's high tech development efforts may have contributed to the city's success in adding over 40,000 high tech jobs in the 1990s.<sup>79</sup> In both the BFTP case and San Diego's case, the high tech strategy was comprehensive, including university research, technology transfer, business advice to start-up companies, and efforts to increase venture capital availability. It is plausible that comprehensive high tech strategies are more effective than a single program.

**Special types of land.** Some local economic development policies target the development of specific types of land, such as:

- "brownfields" (idle or underused industrial/commercial property with real or perceived environmental contamination problems);
- economically distressed neighborhoods, which are most frequently targeted for redevelopment today by "enterprise zone" programs that provide tax incentives or special services; and
- downtowns.

One rationale for such programs is that they can increase the effective supply of land for business development if they redevelop land that

### **Ben Franklin Technology Partners<sup>10</sup>**

Created by the state of Pennsylvania in 1982, the Ben Franklin Technology Partners (BFTP) program has used state funds to promote the creation of high-tech jobs in Pennsylvania. The state funds are distributed through four regional centers (or "Partners"). The BFTP provides:

- \* financing for R&D for high tech companies;
- \* business advice and technical advice and referrals for these same companies; and
- \* funding for regional technology infrastructure, such as centers of excellence in technology-related research at universities, venture capital funds and other financing vehicles, and business incubators and research parks.

Two-thirds of the firms receiving financing have 20 or fewer employees. Assistance is provided to a wide range of industries, not only high tech manufacturing, but also high tech services such as software.

---

<sup>10</sup>This description is largely based on Nexus Associates, "A Record of Achievement: The Economic Impact of the Ben Franklin Partnership," October 1999 report to state of Pennsylvania.

### San Diego's High Technology Policies<sup>11</sup>

Despite defense cutbacks in the late 1980s and early 1990s, San Diego experienced rapid growth of high tech employment in the 1990s, particularly in small start-up firms, and particularly in the biotech, pharmaceutical, and communications industries. This high tech growth may be due to local leadership that helped create a variety of regional services to promote high tech. This leadership came from the University of California San Diego, and local governments, foundations, economic developers, and CEOs. Among the important events were UCSD's attraction of well-known professors in science and technology, and funding of several research centers. UCSD sponsored CONNECT, a fee-based university extension program which promoted networking activities for the high tech sector, including seminars for businesses on start-up skills, management, and marketing, and opportunities for high tech entrepreneurs to present business plans to venture capitalists or other investors. Other regional services to promote high tech include the San Diego Chapter of the MIT Enterprise Forum, which offered additional seminars and networking opportunities. In addition, the San Diego area has an entrepreneurial training program at San Diego State University, technical training programs for workers and an incubator at San Diego City College, a state-sponsored regional technology program which provides high-tech businesses with referrals to service providers and financing sources, and a local manufacturing extension center.

---

<sup>11</sup>This sidebar is largely based on Innovation Associates, *Developing High-Technology Communities: San Diego*, April 2000 report prepared for U.S. Small Business Administration.

would otherwise be vacant. According to the 1999–2000 ICMA survey, problems with land availability were a barrier to economic development in 57 percent of local jurisdictions. In addition, the problems with these types of land may have negative effects on surrounding neighborhoods or throughout the local area. Brownfield contamination may spread to other areas and distressed neighborhoods may increase crime. For all of these types of land, development problems may spread deterioration into surrounding neighborhoods and create public relations problems for the entire local area. Redevelopment of such land may happen through residential redevelopment as well as business redevelopment, but business redevelopment often is a good option.

Brownfields are defined as “contaminated industrial/commercial property that is abandoned, underutilized, or idle.”<sup>80</sup> Brownfield sites are distinct from the relatively few “Superfund” sites for which the U.S. Environmental Protection Agency takes charge of cleanup; brownfields usually have lower levels of contamination than Superfund sites. The United States has an estimated 400,000 brownfield sites that have sufficient environmental contamination to potentially trigger cleanup action based on environmental laws.<sup>81</sup> Brownfields face significant barriers to development. Under environmental law, without special agreements by environmental agencies, the land owners are potentially liable for the costs of cleaning up any contamination that might be discovered. This creates uncertainty about future costs for an entity that might otherwise be interested in redeveloping the site. This uncertainty about future costs increases further because,

for many sites, the types and scope of environmental contamination may be only imperfectly known. In addition to cleanup costs, many brownfields have problems due to aging infrastructure or neighborhood deterioration. According to a 1999 U.S. Conference of Mayors survey of 231 cities, the most frequently mentioned barriers to development of brownfields were lack of cleanup funds (mentioned by 90 percent of the cities), liability issues (71 percent), and the need for environmental assessment of the brownfields (60 percent).<sup>82</sup>

Given the cleanup costs, and the requirements of environmental law, the redevelopment of brownfield sites cannot be accomplished by the local government working alone with private developers, without any federal or state involvement. However, local government can serve as a catalyst for redevelopment by focusing the attention and resources of the relevant parties. The local government can identify which brownfield sites to target first for redevelopment, with a site ranked as a higher priority if it is easier to redevelop or its redevelopment offers greater spillover benefits. The local government can encourage state and federal agencies to provide financial support for cleanup and redevelopment, as well as assurances that if cleanup is done, some exemptions from future liability will be provided to the property's owners. The local government can negotiate with state and federal agencies to set appropriate cleanup standards that balance protection of public health against keeping costs reasonable. These cleanup standards and costs can be appropriately scaled back if the local government and landowner agree to "institutional controls," such as zoning and deed restrictions, that ensure that future uses of the land can tolerate higher remaining contamination levels without threatening public health. Almost all states have "voluntary cleanup programs," which is a formal process under which landowners and the local government can come to a formal agreement with state agencies that limits liability and sets cleanup standards. Only some states have a "memorandum of agreement" with the U.S. EPA under which the state can offer assurances related to federal environmental law.

Distressed neighborhoods have long been targeted for redevelopment by government programs, including "Urban Renewal" in the 1940s and 1950s, "Model Cities" during the War on Poverty, and Community Development Block Grants initiated during President Nixon's "New

### **Dallas Brownfields Program**<sup>12</sup>

Begun in 1995 with a grant from the U.S. Environmental Protection Agency, the Dallas Brownfields Program has promoted redevelopment of Dallas's brownfields by providing information and education, linking property owners with groups that can provide assistance, and ensuring a clear process for successfully redeveloping brownfields. The key activity of the DBP is the Dallas Brownfields Forum, a group of over 200 members which meets every two months, with involvement from developers, property owners, consultants, bankers, community residents, environmental agencies, and other public agencies. The Forum provides information to participants, discusses specific projects, helps resolve project-specific problems, and considers policy changes. The DBP also provides property owners with a free environmental site assessment, help in dealing with environmental agencies, and information on available economic development programs. Finally, the DBP developed a formal written agreement with the Texas state environmental agency outlining how property owners can be relieved of liability if they agree to a voluntary cleanup. DBP has been involved with the redevelopment of 24 sites, with over \$800 million in public and private investment. The Dallas Brownfields Program has been identified as a "Brownfields Showcase Community" by the U.S. Environmental Protection Agency.

---

<sup>12</sup>This sidebar is based on several documents, including "Dallas Brownfields Program Spurs Neighborhood Revitalization," Office of Policy Development and Research, U.S. Department of Housing and Urban Development, available at [www.hud-user.org/periodicals/fieldworks/0402/fworks2.html](http://www.hud-user.org/periodicals/fieldworks/0402/fworks2.html), and the description of Dallas's program in *Brownfields Redevelopment* (Washington, DC: International City/County Management Association, 2001): p. 221; and Seth Kirshenber and Charles Bartsch, "Brownfields: Options and Opportunities" (Washington, DC: International City/County Management Association, 1997): 20–21.

Federalism" (which still persist). "Enterprise zones" is a generic name for an approach to revitalizing distressed neighborhoods or other small spatial areas that emphasizes encouraging business development using tax or financial incentives or special public services. Thirty-six states have designated over 2800 "enterprise zones" (or some similar name), although 2,083 of these zones were in Arkansas and Louisiana, and another 227 in Ohio, with the remaining 500 zones in the other 33 states.<sup>83</sup> In addition, since 1994, the federal government has designated 193 "Empowerment zones, enterprise communities, and renewal communities," with the incentives varying over time and for different types of zones.<sup>84</sup> Enterprise zone incentives typically include tax breaks for businesses investing in the zone or locating in the zone and hiring zone residents. Enterprise zones often include some enhancement of public services or infrastructure, such as road improvements or enhanced police protection, or some staff devoted to zone development. Sometimes, enterprise zones offer tax breaks for zone residents.

One issue with "enterprise zones" is whether the incentives and special public services will be of sufficient size to overcome the severity of many enterprise zones' problems, such as problems with crime, infrastructure, and the residents' job skills. Another issue with "enterprise zones" is whether zone residents benefit. Most Americans don't live and work in the same neighborhood, so it is not obvious that any jobs created will go to neighborhood residents. Even if the jobs go to neighborhood residents, will they go to

neighborhood residents who were difficult to employ, or local residents who were already employed? In addition, if the zone succeeds in increasing local property values, although property tax revenues will increase and neighborhood homeowners and other landowners will benefit, some neighborhood renters may be displaced.

Some evaluations of enterprise zones have reached negative conclusions. Several studies have compared the growth of business activity in zip codes including state-designated enterprise zones to otherwise similar zip codes without enterprise zones, and have found little evidence of positive effects of zones on overall business activity.<sup>85</sup> Another study finds no evidence that state-designated zones with high levels of incentives outperform zones with low levels of incentives.<sup>86</sup> This same study also found that only 10 percent of the typical zone's workers held jobs in the zone, and that only one-fourth of jobs in the typical zone were held by zone residents, which suggests that it is difficult to target the benefits from new zone jobs on zone residents. All of these studies are looking at current state zone programs. It is possible that newer state enterprise zones with larger incentives or services, or the federal versions of enterprise zones, will prove to have larger benefits.<sup>87</sup>

One issue with downtown development is whether it is really economic development. Will any jobs gained by successful downtown development benefit the local area, or will they simply redistribute jobs from other business centers to downtown businesses? Total local business activity will increase from downtown development if a downtown can attract shoppers from outside the local economy, or divert some local demand from the internet to downtown. Total local business activity may increase if downtown development plays a symbolic role in attracting businesses and households to the local area.<sup>88</sup>

Among the approaches being applied, often successfully, to encourage downtown development<sup>89</sup>, are:

- Restoring and enhancing unique downtown amenities, such as older buildings, waterfront areas, or pleasant spaces for walking;
- Developing downtown housing to create a critical mass of local retail demand, which will allow retail businesses to flourish and also attract outside shoppers;



### **Downtown Franklin (TN) Association<sup>13</sup>**

In the 1970s, Franklin, Tennessee, 15 miles south of Nashville, had a downtown with severe economic problems: vacancies were over 50 percent, and many of the remaining businesses were pool halls, thrift shops, and liquor stores. In 1984, the Downtown Franklin Association (a private nonprofit organization with participation from downtown merchants, property owners, public officials, and volunteers) was organized to revitalize and restore Franklin's downtown. The key strategy was to do extensive, widespread, visual improvements that preserved this historic character of Franklin. These improvements included lobbying city hall and the state to invest over \$1 million in public infrastructure improvements including new sidewalks, street lamps, new water and sewer, new streets, and restoring Franklin's historic courthouse square. Property owners were encouraged to make facade improvements that would restore their building's historic character, in part by labor donated by local volunteers. In addition, the downtown association organized events to attract new visitors to downtown. Franklin's efforts, complemented by the strong Nashville economy, have contributed to property values more than tripling in the downtown area. Downtown Franklin has been designated a Great American Main Street by the National Trust for Historic Preservation.

---

<sup>13</sup>This sidebar is largely based on Richard Moe and Carter Wilkie, *Changing Places: Rebuilding Community in the Age of Sprawl* (New York: Henry Holt, 1997): pp. 166–172. The Downtown Franklin Association merged with a broader county preservation group in 1998.

- Attracting outside demand to the downtown area via special marketing events, or through expensive investments in developments that will attract outsiders, such as museums and sports stadiums.

One issue is how to pay for downtown development. In addition to local general funds, and grants from higher levels of government, another possibility is taxes financed by the downtown development itself. One alternative is tax increment financing, under which all property taxes from new development in a designated area, such as a downtown, are used to support enhanced public services or infrastructure in the designated area. TIFs can be used to support bonds that will pay for infrastructure upfront. A second alternative in some states is the creation of a business improvement district.<sup>90</sup> Under this alternative, property owners in the designated district can vote to assess themselves higher property taxes to be devoted to the improvement of the district.

### **The Organization and Management of Local Economic Development Policy**

How should local economic development policies be organized and led? Which groups should be involved? I consider this issue from a geographic perspective before discussing some of the groups whose involvement is needed.

Local economic development policies should ideally be coordinated, or even organized, within a local labor market area (such as a metropolitan area), for two reasons. First, there are negative spillover effects of competition within a local labor market area. Most jobs attracted to an individual jurisdiction pursuing economic development on its own would have otherwise probably

located somewhere else in the local labor market area. One jurisdiction gains tax revenue at the expense of other jurisdictions; the overall labor market effects are similar regardless of where the business is located, and the fiscal effects for the entire area probably are similar. If the competition becomes general, all jurisdictions in the local area lose business tax revenue, and the pattern of business activity is roughly the same, with modest effects on increasing overall local business activity. Furthermore, jurisdictions will seek business activity that maximizes the well-being of the jurisdiction rather than the overall local area. Jurisdictions will overinvest in attracting business activity that brings high levels of tax revenue to the jurisdiction, but low levels of labor market and fiscal benefits to the overall local area. Jurisdictions will underinvest in attracting business activity that brings high levels of environmental and congestion costs to the jurisdiction, but high levels of labor market and fiscal benefits to the overall local area.

Second, many economic development programs benefit from being coordinated over the entire local labor market. Marketing an area to attract new branch plants is more effective if done in one unified campaign. Job training programs will work better if they train individuals from throughout the labor market for jobs throughout the local labor market. The firms in a “cluster” will be located throughout a local area, and so cluster strategies will need to be areawide.

An economic development program should have good communication and coordination among a wide variety of groups in the local labor market area. As mentioned previously, local economic development programs are carried out by local governments, state economic development agencies, small business development centers, organizations providing business or manufacturing extension services, university efforts for technology transfer, customized training programs at community colleges, chambers of commerce, utility companies, and a wide variety of independent non-profit organizations.

There are advantages, as well as risks, in pursuing local economic development with involvement from the private sector. This can be in the form of a formal public-private partnership that administers some programs or tries to coordinate programs, a formal public-private partnership that implements a specific project, or more informal public-private cooperation. The private sector

may provide additional funding for local economic development. The private sector may sometimes be more flexible in what it can do; in particular, the private sector can sometimes assist businesses in ways that are forbidden to local governments under state law. However, if local economic development is subsidized by local government, this development must produce adequate public benefits to justify the subsidy. Balancing public and private interests in a public-private partnership is sometimes difficult.

Other groups that should be involved in local economic developments are community-based development organizations, usually called “community development corporations.”<sup>91</sup> There are over 1,700 such organizations in the United States, dating back to War on Poverty efforts in the late 1960s, and continuing today with grants and investments from foundations such as the Ford Foundation.<sup>92</sup> CDCs have traditionally been involved in housing development and social services, but have sometimes played a significant role in economic development. Community-based organizations have some comparative advantages that may increase the effectiveness of economic development, including:

- CDCs may be more able than other groups to effectively communicate and advocate for what the local community wants in economic development;
- CDCs may be better able than other organizations to provide effective screening, counseling, and support services for community participants in job placement and job training programs that are part of local economic development efforts;
- CDCs may be better able to involve local community micro businesses, or local community residents who want to be entrepreneurs, in programs to start-up and expand small businesses in the community;
- CDC involvement may attract foundation or federal government investment in a local area’s economic development efforts.

One issue in local economic development is attracting adequate leadership that will provide the political clout needed to pull local efforts together and get significant new programs or projects started.<sup>93</sup> An increasing leadership problem has occurred for smaller local areas due to corporate consolidation, particularly in the banking industry. Traditionally, locally based banks and other large locally controlled businesses helped supply funding, leadership, and political clout to local economic

development. Many local areas must look to other institutions for leadership on local economic development issues. One institution that increasingly is involved in economic development programs, and often in economic development leadership, is higher education. With the increasing importance of worker skills, research know-how, and high tech industries, universities and community colleges are becoming crucial institutions whose active engagement with economic development is essential to successful local economic development efforts.

### **Evaluation of Local Economic Development Policies**

Local economic development organizations should not be expected, on their own initiative and funding, to engage in expensive and complicated evaluations of economic development programs to inform the national debate over what works in local economic development. I have outlined elsewhere how rigorous methodologies, such as random assignment, can be used to evaluate economic development programs.<sup>94</sup> However, such efforts should be financed at the federal or state level, as such evaluation is expensive and technically demanding, and most of the benefits would accrue throughout the state and nation.

What is helpful to local economic development organizations are cheaper and easier evaluations to provide useful feedback to local program managers and local funders on how well different programs are working, and how they can be improved. Regular surveys of the businesses that use different programs are a good cheap evaluation methodology. These surveys should ask specific questions about how the program affected the business's location, expansion, investment, employment, and operations. To minimize bias in the responses, surveys should be administered by some organization independent of the program operator. Past use of such surveys suggests that they frequently give valuable feedback for programs that provide economic development services, such as business extension programs. For such services, the surveyed business lacks any strong reason to claim the service was useful when the service was actually useless. For programs providing financial incentives, one might argue that a business may claim the incentive was decisive to keep the cash coming. But even for financial incentives, in many cases the surveyed businesses will report that the

incentive had no effects. For example, the audit agency of the Colorado state legislature surveyed 18 businesses that had located or expanded in Colorado enterprise zones, and 10 of these businesses said that the zone incentive has not affected their location or expansion decisions.<sup>95</sup> A useful guide to surveys of business clients of economic development programs is an Urban Institute book.<sup>96</sup>

As mentioned before, this survey evidence must then be incorporated into local models to determine the multiplier, employment, and fiscal effects of the program. Even smaller local areas can obtain reasonably cheap models that provide rough estimates of these ultimate effects of local economic development efforts. Providing information on how local economic development is affecting the final goals of local economic development, which are labor market and fiscal goals, helps improve the design of local economic development efforts. Reporting such data will help keep local development efforts focused on the ultimate goals of local economic development, not the proximate goals. Increasing local business activity is not an end in itself. Rather, it is a means to achieving benefits for the public in the form of labor market and fiscal benefits.

## **Conclusion**

Local economic development is increasingly seen as a major local government responsibility, requiring significant government resources, not least in the form of foregone tax revenues. Rather than summarizing this paper point by point, I will identify a few common themes.

- Eyes on the prize. Local economic development should be focused on providing employment and fiscal benefits to local residents, while preserving the local quality of life. Evaluations of local economic development programs should focus on how the program affects achievement of these goals. To increase local wealth, local economic development must expand business activity that exports outside the local economy, substitutes for imports to the local economy, increases productivity, or better utilizes underused local resources such as difficult-to-employ workers or contaminated land.
- A broad portfolio. A comprehensive local economic development policy will include strategies focused on business attraction, business retention, new business start-up, high technology, and land whose usage raises special concerns.

- Targeting. To make local economic development policies more effective, programs should be targeted on business that are most likely to provide significant employment and fiscal benefits, which includes businesses that are willing to be involved with local training and jobs programs. Financing programs should be targeted at businesses whose behavior is likely to be affected, such as businesses with good alternative locations, or businesses unlikely to receive normal bank financing.
- Training and economic development go together. To effectively increase business activity and provide employment benefits, local economic development programs need to include customized training programs that can effectively serve the needs of two types of clients, the business community and the unemployed.
- Information is cheap and effective. Government can subsidize the provision of basic information to businesses that will help increase business productivity and survival.
- The coordination of economic development programs must involve the groups that benefit and the groups that can provide special services. Economic development should be coordinated on a local labor market basis because that is where the benefits accrue and where local business inputs are provided. Private businesses, educational institutions, and community organizations are among the groups that should be involved in local economic development, because of the special support they can provide to local economic development efforts.

There is no one best strategy for successful local economic development. Each local area is different, with its own unique economic base and local institutions. Success is more likely if local economic development efforts are aimed at broadening the market's benefits and filling in its gaps.

## Notes:

1. Some other publications that give guidance to appropriate local economic development policies include: *Harvesting Hometown Jobs* (Washington, DC: National Center for Small Communities, 1997); Michael J. Kinsley, *Economic Renewal Guide: A Collaborative Process for Sustainable Community Development* (Snowmass, CO: Rocky Mountain Institute, 1997); *Innovative Local Economic Development Practices* (Washington, DC: U.S. Department of Commerce, Economic Development Administration, 1999); John Blair and Laura Reese (editors), *Approaches to Economic Development: Readings from Economic Development Quarterly* (Thousand Oaks, CA: Sage Publications, 1999); Emil Malizia and Edward Feser, *Understanding Local Economic Development* (New Brunswick, NJ: Center for Urban Policy Research, Rutgers University, 1999); Edward J. Blakely and Ted K. Bradshaw, *Planning Local Economic Development: Theory and Practice* (Thousand Oaks, CA: Sage Publications, 2001); Joan Fitzgerald and Nancy Green Leigh, *Economic Revitalization: Cases and Strategies for City and Suburb* (Thousand Oaks, CA: Sage Publications, 2002); *Local Economic Development: A Primer* (Washington, D.C.: World Bank, 2002, available free on-line at [www.worldbank.org/urban/led](http://www.worldbank.org/urban/led)); *Local Economic Development Handbook* (Arlington, VA: ACCRA, updated periodically and can be ordered at [www.accra.org](http://www.accra.org)); Steven Koven and Thomas Lyons, *Economic Development: Strategies for State and Local Practice* (Washington, D.C.: International City/County Management Association, 2003).
2. Matt Kane and Peggy Sand, *Economic Development: What Works at the Local Level* (Washington, D.C.: National League of Cities: 1988), 4.
3. This is from a 1993 survey by the National League of Cities of elected officials in cities over 100,000 in population (Phyllis Furdell, *Poverty and Economic Development: Views From City Hall*, Washington, D.C.: National League of Cities, 1994).
4. These percentages are derived by dividing the percentage listing a given first priority goal among the 73 percent who listed a first priority goal (Furdell, *Poverty*, 11).
5. These figures are based on a survey done in 1999 and 2000 by the International City/County Management Association. Summary figures from this survey are available at <http://www2.icma.org/upload/bc/attach/{BB7BE8BE-87B1-4F15-9211-5DBC84E45681}ed99web.pdf>.
6. The economic development staff and spending per capita are calculated by me using data I obtained from ICMA breaking down their survey responses by the population level of the city or county. Most survey respondents are cities. Per capita figures divide average spending in a population group by the midpoint of that population category.
7. Timothy Bartik, Peter Eisinger, and George Erickcek, "Economic Development Policy in Michigan," in *Michigan at the Millennium* (edited by Charles Ballard, Paul Courant, Doug Drake, Ron Fisher, and Elizabeth Gerber; East Lansing: Michigan State University Press, 2003).
8. Some persons and groups have advocated "local self-reliance." A recent example of such a perspective, is a book by Michael Shuman, *Going Local* (New York: Routledge, 2000). This book argues that relying on local producers of goods and services gives local areas more control over their economic destiny and avoids economic shocks due to the external market. The mainstream opinion among economists is that such a regime of local autarky will significantly decrease real per capita incomes of local residents, as it implies forgoing the advantages of division of labor and comparative advantage that are provided by large scale trade with other areas. In addition, many economic shocks can occur from local causes, such as weather, or poor management or labor disputes at a particular local employer.
9. Timothy Bartik, Peter Eisinger, and George Erickcek, "Economic Development Policy in Michigan," in *Michigan at the Millennium* (edited by Charles Ballard, Paul Courant, Doug Drake, Ron Fisher, and Elizabeth Gerber; East Lansing: Michigan State University Press, 2003).
10. William Oakland and William Testa, "State-Local Business Taxation and the Benefits Principle," *Federal Reserve Bank of Chicago Economic Perspectives* 20, number 1 (Jan.–Feb. 1996): 2–19.
11. Fisher, Ronald C. *State and Local Public Finance* (Chicago: Irwin, 1996), pp. 126–127; Robert P. Inman, "The Fiscal Performance of Local Governments: An Interpretative Review," in *Current Issues in Urban Economics* (Baltimore: Johns Hopkins University Press, 1979): 270–321.
12. The employment benefits from economic development are discussed extensively in Timothy Bartik, *Who Benefits From State and Local Economic Development Policies?* (Kalamazoo, MI: The W.E. Upjohn Institute for Employment Research, 1991).

13. Timothy Bartik, "Who Benefits From Local Job Growth—Migrants or the Original Residents?" *Regional Studies* 27, number 4 (1993): 297–311.
14. For these arguments in more detail, see pages 62–66 of Timothy Bartik, *Jobs for the Poor: Can Labor Demand Policies Help?* (New York and Kalamazoo, MI: Russell Sage Foundation and W.E. Upjohn Institute for Employment Research, 2001).
15. For example, even for enterprise zone residents, who are lower income and less likely to own cars, only one in ten enterprise zone residents work in the enterprise zone, according to research by Alan Peters and Peter Fisher, *State Enterprise Zone Programs: Have They Worked?* (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2002).
16. Stephen Raphael, "The Spatial Mismatch Hypothesis and Black Youth Joblessness: Evidence from the San Francisco Bay Area." *Journal of Urban Economics* 43, number 1 (1998): 71–111.
17. Bartik, *Who Benefits from State and Local Economic Development Policies?*
18. More information on JobNet is provided in Timothy Bartik, *Jobs for the Poor: Can Labor Demand Policies Help?* (New York and Kalamazoo: The Russell Sage Foundation and the Upjohn Institute, 2001), 257–258.
19. John Bishop, "Improving Job Matches in the U.S. Labor Market," *Brookings Papers: Microeconomics* (1993): 335–400.
20. Linnea Berg, Lynn Olson, and Aimee Conrad. *Causes and Implications of Rapid Job Loss Among Participants in a Welfare-to-Work Program* (Evanston, IL: Center for Urban Affairs and Policy Research at Northwestern University, 1991).
21. The empirical evidence is reviewed in Bartik, *Jobs for the Poor*, pp. 146–148.
22. The market failure approach to economic development policy is presented in more detail, with references, in Timothy Bartik. "The Market Failure Approach to Regional Economic Development Policy," *Economic Development Quarterly* 4, number 4 (November 1990): 361–370.
23. The argument that specific environmental effects of local economic development should receive consideration in local economic development policymaking would be uncontroversial among economists. A more controversial issue is whether increases in a local economy's use of any and all nonrenewable resources that are sold in the market, such as energy, should be seen as a negative external cost of economic development. This position has been most prominently argued by Herman Daly in a number of books and articles, for example in Herman Daly, *For the Common Good: Redirecting the Economy toward Community, the Environment, and a Sustainable Future* (Boston, MA: Beacon Press, 1994). The overwhelming majority of economists, however, do not believe that in general resources are mispriced because they are nonrenewable. They may be mispriced in specific cases because of environmental effects (e.g., greenhouse gas emissions) or negative political effects (e.g., the political problems created because of OPEC's influence over world oil prices).
24. Ted Levine, "Six Revolutions in Economic Development Marketing," *The IEDC Economic Development Journal* 1, number 1 (Winter 2002): 5–12.
25. Peters and Fisher, *State Enterprise Zone Programs*.
26. Ted Levine, "Six Revolutions in Economic Development Marketing," *The IEDC Economic Development Journal* 1, number 1 (Winter 2002): 5–12.
27. Ted Levine, "Six Revolutions in Economic Development Marketing," *The IEDC Economic Development Journal* 1, number 1 (Winter 2002): 5–12.
28. International City/County Management Association, survey of chief administrative officers of local governments, 1999–2000.
29. Ted Levine, "Six Revolutions in Economic Development Marketing," *The IEDC Economic Development Journal* 1, number 1 (Winter 2002): 5–12.



30. Source for these figures is Table 1 in Bartik, Eisinger, and Erickcek, *Michigan*. Incentives include all state and local tax and other financial incentives, plus job training incentives plus infrastructure incentives. Michigan's per capita expenditure on these incentives is extrapolated to the nation based on July 1, 2002 population estimates from the U.S. Census Bureau.

31. These figures on the training and infrastructure share of total incentives are calculated from Table 4.9 in Peter Fisher and Alan Peters, *Industrial Incentives: Competition Among American States and Cities* (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 1998). The figures given in the text are simple averages over the 16 representative firms used by Fisher and Peters, which in turn are averages that Fisher and Peters calculate over the 24 leading industrial states in their sample. These figures are as of 1992.

32. Joyce Man, "Introduction," in *Tax Increment Financing and Economic Development: Uses, Structures, and Impact* (edited by Craig Johnson and Joyce Man; Albany, NY: State University of New York Press, 2001). This entire book supplies a number of articles giving useful background and evidence on tax increment financing.

33. Timothy Bartik, *Who Benefits From State and Local Economic Development Policies?* chapter 2. Timothy Bartik, "The Effects of State and Local Taxes on Economic Development: A Review of Recent Research," *Economic Development Quarterly* 6, number 1 (February 1992): 102–110. Michael Wasylenko, "Taxation and Economic Development: The State of the Economic Literature," *New England Economic Review* (March/April 1997):37–52.

34. This calculation is as follows: the tax elasticity of private employment with respect to state and local business taxes ( $E$ ) is defined as  $(dJ/J)/(dT/T)$ , where  $J$  is the number of jobs,  $dJ$  is the change in the number of jobs,  $T$  is the tax rate, and  $dT$  is the change in the business tax rate. The percentage change in revenue from a tax cut,  $dR/R$ , will approximately equal  $dT/T + dJ/J$ . Substituting and rearranging, one obtains  $dR/dJ = (R/J)[1 + (1/E)]$ .  $R/J$  is state and local business tax revenue per job, which was about \$1,634 per job in the United States as of 1989. With a value of -0.25 for  $E$ , one obtains  $dR/dJ = -\$4,902$ . Updating by the change in consumer price index from 1989 to 2002 gives a figure in 2002 dollars of  $(179.9/124)4,902 = \$7,112$ .

The figure of \$1,634 for state and local business taxes per private employee comes from three sources. Total state and local tax revenue in fiscal year 1989 was \$469 billion (Bureau of the Census, *Government Finances: 1988–89* [Washington, DC: GPO, 1991], 21). The most recent estimate of the business share of state and local taxes is 31 percent (ACIR, *Regional Growth: Interstate Tax Competition*, Report A-76 [Washington, DC: ACIR, March 1981], revised version of table A-1; figures for 1977). Private nonagricultural employment in the United States averaged 89 million during fiscal year 1989 (Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* [January 1991]: S-10). These figures could be updated using more recent state and local data, but most of the studies estimating elasticities were estimated using earlier data, so use of this historical data is probably better.

The elasticity used is a compromise between the -0.3 preferred in the literature review by Bartik, "The Effect of State and Local Taxes," and the -0.2 preferred by Wasylenko, "Taxation and Economic Development." The Consumer Price Index figures come from the U.S. Bureau of Labor Statistics.

35. Timothy Bartik, "The Effects of State and Local Taxes on Economic Development: A Review of Recent Research," *Economic Development Quarterly* 6, number 1 (February 1992): 102–110.

36. Lawrence Summers and James Poterba, "Time Horizons of American Firms: New Evidence from a Survey of CEOs," in *Capital Choices: Changing the Way America Invests in Industry*, edited by Michael Porter (Boston, MA: Harvard Business School Press, 1994). This is consistent with a conversation I had in 2003 with the corporate location director for a prominent high tech company; this executive said his firm used a discount rate of 15 percent in comparing the profitability of different locations.

37. For upfront incentives to have greater effects per dollar of present value costs from the perspective of local taxpayers, these taxpayers must have an annual real discount rate of less than 12 percent.

38. Neal Peirce, "State, Local Corporate Subsidies: A New Coalition for Accountability", syndicated column for Washington Post Writers' Group of August 5, 2002. Available online at <http://www.postwritersgroup.com/archives/peir0805.htm>.

39. Timothy Bartik, Peter Eisinger, and George Erickcek, "Economic Development Policy in Michigan," in *Michigan at the Millennium* (edited by Charles Ballard, Paul Courant, Doug Drake, Ron Fisher, and Elizabeth Gerber; East Lansing: Michigan State University Press, 2003).

40. These figures and subsequent figures in this paragraph are all derived from Steven Davis, John Haltiwanger, and Scott Schuh, *Job Creation and Destruction* (Cambridge, MA: The MIT Press, 1996), chapter 2.

41. These figures on components of manufacturing employment change are derived from Davis, Haltiwanger, and Schuh, *Job Creation and Destruction*. Over a longer time frame, a greater proportion of the job creation is due to new plants rather than expansions. Over a five year period, the number of jobs created in manufacturing is about 30% of the original base, and about 60% of this job creation (e.g., 18% of the base) is due to new plants and 40% (12%) is due to plant expansions (Timothy Dunne, Mark Roberts, and Larry Samuelson, "Plant Turnover and Gross Employment Flows in the U.S. Manufacturing Sector," *Journal of Labor Economics* 7, issue 1 (January 1989): 48–71). However, many of these new plants may be start-ups. Also, the job creation due to plant expansions after five years is greater than after one year (12% vs. 9%).
42. The discussion here is influenced by the good description and discussion of business visitation programs that is found in Council for Urban Economic Development, "Business Visitation and Surveying," in *Local Economic Development Handbook: A Guide for Practitioners and Communities* (Arlington, VA: ACCRA: regularly updated, available at [www.acra.org](http://www.acra.org)). Another source for this discussion is Christopher Allanach and Scott Loveridge, "An Assessment of Maximum-Training Business Visitation Programs," *Economic Development Quarterly* 12, number 2 (May 1998): 125–136.
43. National Institute of Standards and Technology, "The Manufacturing Extension Partnership: Delivering Measurable Returns to Its Clients." (Washington, D.C.: U.S. Department of Commerce, 2002).
44. Economists tend to be skeptical about survey responses to such subjective questions, concerned that respondents may find it in their interests to bias their responses. In this instance, however, it is unclear why firms would want to claim that manufacturing extension services are useful if these services are useless.
45. Ronald Jarmin, "Evaluating the Impact of Manufacturing Extension on Productivity Growth," *Journal of Policy Analysis and Management* 18, number 1 (1999): 99–119. Nexus Associates, "A Record of Achievement: The Economic Impact of the Ben Franklin Partnership," (Belmont, MA: Nexus Associates, 1999). Eric Oldsman and Jack Russell, "The Industrial Resource Center Program: Assessing the Record and Charting the Future," (unpublished report prepared for state of Pennsylvania, 1999).
46. Oldsman, Eric and Jack Russell. 1999. "Industrial Resource Center Program: Assessing the Record and Charting the Future." Unpublished report prepared for the state of Pennsylvania.
47. In addition, if any workers who left their jobs because of the productivity improvement were relatively employable, this extra supply of workers could attract additional employment to the local area.
48. My discussion of "clusters" is influenced by two reports by Stuart Rosenfeld that provide a much more extensive analysis of the cluster approach: Stuart Rosenfeld, *A Governor's Guide to Cluster-Based Economic Development* (Washington, D.C.: National Governors Association, 2002); Stuart Rosenfeld, *Just Clusters: Economic Development Strategies that Reach More People and Places* (Carrboro, NC: Regional Technology Strategies, 2002).
49. Rosenfeld, Stuart. 2002b. *Just Clusters: Economic Development Strategies that Reach More People and Places*. Carrboro, NC: Regional Technology Strategies, p. 36; Rosenfeld, Stuart. 2002a. *A Governor's Guide to Cluster-Based Economic Development*. Washington, DC: National Governors Association, p. 10.
50. Rosenfeld, Stuart. 2002b. *Just Clusters: Economic Development Strategies that Reach More People and Places*. Carrboro, NC: Regional Technology Strategies, pp. 21–22.
51. Davis, Steven, John Haltiwanger, and Scott Schuh. 1996. *Job Creation and Destruction*. Cambridge, MA: The MIT Press, Chapter 4.
52. This can be calculated by combining figures from Table A.3 (p. 59) and Table A.9 (p. 84) in Office of Advocacy, U.S. Small Business Administration, "Annual Report on Small Business and Competition," in *The State of Small Business: A Report of the President, 1999–2000* (Washington, D.C.: U.S. Government Printing Office, 2001). For similar figures further back in time, see Robert Bednarzik, "The Role of Entrepreneurship in U.S. and European Job Growth," *Monthly Labor Review* (July 2000): 3–16.
53. For example, a report on the UI Self-Employment Experiment found that in one of the two study states, the state of Washington, the self-employment training for unemployment benefit recipients interested in entrepreneurship reduced wage and salary earnings about as much as it increased self-employment earnings. See Jacob Benus, Terry Johnson, Michelle Wood, Neelima Grover, and Theodore Shen, *Self-Employment Programs: A New Reemployment Strategy, Final Impact Analysis of the Washington and Massachusetts Self-Employment Demonstrations (December 1994)* (Washington, DC: U.S. Department of Labor, Unemployment Insurance Occasional Paper 95–4, 1995), pp. vii–ix.

54. The figures below come from Benus et al, *Self-Employment Programs*. Simple average from the two states are used to generate the figures used in the text.
55. SBA dollar figures come from the website of the U.S. Small Business Administration, at <http://www.sba.gov/gopher/Business-Development/funding.txt>. Information on the number of centers comes from the U.S. SBA at <http://www.sba.gov/sbdc/mission.html>.
56. *SBA: Small Business Development Centers-A Program Review 2001*. Available on SBA web site at <http://www.sba.gov/sbdc/programreview2001/SBARreport.html>.
57. Many studies have been done by James Chrisman, a Professor at the University of Calgary, under contract either with the National Association of Small Business Development Centers, or with individual state programs. The most recent study is James Chrisman, "Economic Impact of Small Business Development Center Counseling Activities in the United States: 2000–2001." A report by the SBA Inspector General raises some caveats about low response rates and the wording of some of these survey questions; see *Performance Measurement in the SBDC Program, Inspection Report No. 98-09-01* (Washington, D.C.:U.S. SBA, 1998).
58. Dinah Adkins, *A Brief History of Business Incubation in the United States* (Athens, Ohio: National Business Incubation Association, 2002), p. 23.
59. Adkins, Dinah. 2002. *A Brief History of Business Incubation in the United States*. Athen, OH: National Business Incubation Association, p. 24.
60. "Business Incubation Facts," National Business Incubation Association, available on web at <[www.nbia.org](http://www.nbia.org)>.
61. The two-thirds figure comes from Lawrence Molnar, Donald Grimes, Jack Edelstein, Rocc De Pietro, Hugh Sherman, Dinah Adkins, and Lou Tornatzky, *Impact of Business Incubator Investments* (Athens, Ohio and Ann Arbor, MI: National Business Incubation Association and University of Michigan, 1997), p. 15. The difficulty of matching is illustrated by this study, which was unable to successfully find matches and get responses. See this full report, which is also described in Hugh Sherman and David Chappell, "Methodological Challenges in Evaluating Business Incubator Outcomes," *Economic Development Quarterly* 12, number 4 (November 1998): 313–321.
62. Andrea Levere and David Wingate, "Counting on Local Capital: Evolution of the Revolving Loan Fund Industry," *Community Investments* 11, number 1 (winter/spring 1999), newsletter published by Federal Reserve Bank of San Francisco and available online.
63. John Caskey and Robinson Hollister, "Business Development Financial Institutions: Theory, Practice, and Impact," (October 2001), Discussion Paper no. 1240-01, Institute for Research on Poverty, University of Wisconsin-Madison. Since 1994, the U.S. Department of Treasury has provided financial and technical assistance to "Community Development Financial Institutions" (CDFIs), which are intended to help provide disadvantaged communities with better access to credit, including but not limited to business loans. Various tax breaks are also available for investors in CDFIs. For more information, see <http://www.cdfifund.gov/overview/index.asp>.
64. Alan Berube, "Capital Access Programs: A Summary of Nationwide Performances," January 2001 report of U.S. Department of the Treasury.
65. David Barley, Deborah Markley, David Freshwater, Julia Sass Rubin, and Ron Shaffer, *Establishing Nontraditional Venture Capital Institutions: Lessons Learned* (Rural Policy Research Institute, 2000).
66. One could also argue that private financial markets may fail to provide loans and investments that are financially profitable. If this were so, then government supported capital market programs could earn a profit. However, this seems rare, which suggests that the case for capital market programs must be on their social benefits outweighing their below-market risk-adjusted rate of return.
67. Price Waterhouse, *Evaluation of the 7(a) Guaranteed Business Loan Program* (March 1992). Unpublished final report prepared for the U.S. Small Business Administration under Contract Number SBA-5033-FAD-90.
68. Levere, Andrea and David Wingate. 1999. "Counting on Local Capital: Evolution of the Revolving Loan Fund Industry." *Community Investments* 11(1). Available online from the Federal Reserve Bank of San Francisco at [www.frbsf.org](http://www.frbsf.org).

69. This is based on figures in Center for Urban Policy Research at Rutgers University, *The Impact of EDA RLF Loans on Economic Restructuring* (2002), Report to U.S. Economic Development Administration. On p. 13 of this report, under the assumption that all RLF loans increase base economic activity, and using the IMPLAN model to derive multipliers, the report concludes that the average EDA cost per total job created is \$771. On p. 53, using a econometric model that relates county employment to RLF loan volume, the report concludes that the average EDA cost per total job created is \$9,000. These two figures are only consistent if only one in  $(9000/771=11.7)$  RLF loans actually increases a county's economic base.

70. This judgement is based on John Caskey and Robinson Hollister, "The Impact of Business Development Financial Institutions: A Review of Three Studies" (April 2001), unpublished paper, Swarthmore College. This paper reviews three studies that examine a particular BDFI, attempt to determine in what proportion of their financings the BDFI was actually responsible for any subsequent business growth, and estimate the impacts of that induced business growth. The studies reviewed are: Thomas Miller, *Of These Hills: A Review of Kentucky Highlands Investment Corporation; Facts, Stories, Lessons, Questions, and Return on the Taxpayers' Investment*, unpublished monograph, March 1993; Josephine LaPlante, *Evaluating Social and Economic Effects of Small Business Development Assistance: Framework for Analysis and Application to the Small Business Assistance Programs of Coastal Enterprises, Inc.*, monograph published by the Edmund Muskie Institute of Public Affairs, March 1996; John Caskey and Robinson Hollister, "Final Report on the Job Impact of the Enterprise Corporation of the Delta," unpublished paper, Swarthmore College, June 1999. Of these three studies, I have only been able to obtain the Caskey and Hollister study. However, according to Caskey and Hollister's 2001 review of all three studies, all three studies did conclude that in a significant proportion of cases, the BDFI assistance was decisive in inducing growth that would not have occurred "but for" the BDFI assistance. For the Miller study, this conclusion is based on conversations with KHIC staff and clients for each intervention. For the LaPlante study, this conclusion is based on survey responses from assisted firms that indicate that firms attribute 35% of their firm's economic value to CEI's assistance, and 42% of the firms said that they could not have obtained a loan from another source. The Caskey and Hollister study simply assumed that a reasonable lower bound to the Enterprise Corporation's impact is that its intervention was decisive in half the cases.

71. A good review of policies to encourage high technology development is provided in *A Governor's Guide to Building State Science and Technology Capacity* (Washington, DC: National Governors Association, 2002).

72. The Congressional Office of Technology Assessment described high technology firms as those that "are engaged in the design, development, and introduction of new products and innovative manufacturing processes, or both, through the systematic application of scientific and technical knowledge." This definition is quoted on p. 19 of Daniel Hecker, "High-technology Employment: A Broader View," *Monthly Labor Review* (June 1999): 18-28. It comes originally from *Technology, Innovation, and Regional Economic Development* (U.S. Congress, Office of Technology Assessment, September 9, 1982).

73. Based on results of a survey done in 1999 and 2000 by the International City/County Management Association. Summary figures are available online at <http://www2.icma.org/upload/bc/attach/{BB7BE8BE-87B1-4F15-9211-5DBC84E45681}ed99web.pdf>.

74. Hecker, Daniel. 1999. "High-technology Employment: A Broader View." *Monthly Labor Review* (June): 18-28. These are BLS projections for the 1996-2006 period.

75. Denise Drescher, web page on research parks at Department of City and Regional Planning, University of North Carolina at Chapel Hill, available at <http://www.planning.unc.edu/courses/261/drescher/>. These figures were derived as of 1998.

76. NBIA, "Business Incubation Facts." Available on-line at [www.nbia.org](http://www.nbia.org).

77. For a review, see David Salvensen and Henry Renski, "The Importance of Quality of Life in the Location Decisions of New Economy Firms," report for the U.S. Economic Development Administration, 2002. Richard Florida has argued in several articles and a book that metropolitan area that attract a more diverse, creative population will experience greater high tech success, for example metropolitan areas that attract more gays, artists and musicians, and foreign immigrants. See Richard Florida, *The Rise of the Creative Class* (New York: Basic Books, 2002). Also Richard Florida and Gary Gates, "Technology and Tolerance: The Importance of Diversity to High Technology Growth," paper for the Center on Urban and Metropolitan Policy, The Brookings Institution, June 2001.

78. Nexus Associates. 1999. "A Record of Achievement: The Economic Impact of the Ben Franklin Partnership." Belmont, PA: Nexus Associates.

79. Innovation Associates, *Developing High-Technology Communities: San Diego*, April 2000 report prepared for U.S. Small Business Administration.
80. Seth Kirshenber and Charles Bartsch, "Brownfields: Options and Opportunities," May 1997, Management Information Service Report 29, number 5, International City/County Management Association, p. 1. This report provides a useful quick introduction to brownfields. A comprehensive guidebook to dealing with brownfields is provided in *Brownfields Redevelopment: A Guidebook for Local Governments and Communities-Second Edition* (Washington, DC: International City/County Management Association, 2001). These publications influenced the presentation in the text.
81. Kirshenber, Seth and Charles Bartsch. 1997. "Brownfields: Options and Opportunities." Washington, DC: International City/County Management Association, p. 1.
82. *Recycling America's Land: A National Report on Brownfields Redevelopment- Volume 3* (Washington, DC: U.S. Conference of Mayors, February 2000).
83. Peters, Alan and Peter Fisher. 2002. *State Enterprise Zone Programs: Have They Worked?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, pp. 1, 19.
84. Data on numbers of zones taken from website of U.S. Department of Housing and Urban Development, at <http://www.hud.gov/offices/cpd/economicdevelopment/programs/rc/index.cfm>.
85. Robert Greenbaum, *An Evaluation of State Enterprise Zone Policies: Measuring the Impact on Business Decisions and Housing Market Outcomes*, doctoral dissertation, Carnegie Mellon University, 1998; Robert Greenbaum and John Engberg, "The Impact of State Urban Enterprise Zones on Business Outcomes," Discussion paper no. 98-20 (Washington, DC: Center for Economic Studies, U.S. Bureau of the Census, 1998); Daniele Bondonio and John Engberg, "Enterprise Zones and Local Employment: Evidence from the States' Programs," *Regional Science and Urban Economics* 30 (2000): 519-549.
86. Peters, Alan and Peter Fisher. 2002. *State Enterprise Zone Programs: Have They Worked?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
87. Other studies have found some evidence of enterprise zone success, but these other studies are more limited in geographic scope or methodology. Leslie Papke, for example, found some effects of enterprise zones on unemployment, but only for Indiana (Leslie Papke, "Tax Policy and Urban Development: Evidence from the Indiana Enterprise Zone Program," *Journal of Public Economics* 54(1) (1994): 37-49). Rubin and Wilder found that industries in the Evansville Indiana enterprise zone grew faster than their counterparts after the zone designation; but this conclusion is both Evansville-specific and does not demonstrate that the zone was responsible for these differences (Barry Rubin and Margaret Wilder, "Urban Enterprise Zones: Employment Impacts and Fiscal Incentives," *Journal of the American Planning Association* 55(4) (1989): 418-431.) Marilyn Rubin found that one-third of new or expanding enterprise zone firms in New Jersey said that the zone incentives were the primary or only reason for their location decision, but this conclusion is specific to New Jersey's zone, and relies on a possibly biased survey response. (Marilyn Rubin, "Urban Enterprise Zones in New Jersey: Have They Made a Difference?" in *Enterprise Zones: New Directions in Economic Development*, edited by Roy Green (Newbury Park, CA: Sage Publications, 1991)).
88. As pointed out before, if downtown redevelopment causes some land to be used that otherwise would be vacant, it would increase local economic activity by increasing the effective supply of land. However, in the case of downtown development, the assertion that redeveloped land would otherwise stay vacant is frequently implausible.
89. This discussion is influenced by an excellent short research brief on downtown development, Kent Robertson, "Downtown Development: Key Trends and Practices," Policy Brief 8 (June 2001), University of Missouri-St. Louis Public Policy Research Center, available on the internet at [http://www.cardi.cornell.edu/cd\\_toolbox\\_2/tools/downtown\\_trends.cfm](http://www.cardi.cornell.edu/cd_toolbox_2/tools/downtown_trends.cfm). Additional information is available at the National Main Street web site of the National Trust for Historic Preservation, at <http://www.mainst.org/>. An excellent book on downtown redevelopment in large cities is Bernard Frieden and Lynne Sagalyn, *Downtown, Inc.: How America Rebuilds Cities* (Cambridge, MA: The MIT Press, 1989).
90. For more on business improvement districts, see Mildred Warner, James Quazi, Brooks More, Ezra Cattan, Scott Bellen, and Kerim Odekon, "Business Improvement Districts: Issues in Alternative Local Public Service Provision," June 2002 working paper, Department of City and Regional Planning, Cornell University, available at <http://www.cce.cornell.edu/restructuring/>.

91. Much more information on Community Development Corporation can be found at the web sites of the National Congress for Community Economic Development, at [www.ncced.org](http://www.ncced.org), and the Local Initiatives Support Corporation, at [www.liscnet.org](http://www.liscnet.org).
92. The Local Initiatives Support Corporation has assisted over 1700 CDCs; see "LISC Facts," available at <http://www.liscnet.org/whatwedo/facts/>. The National Congress for Community Economic Development claims there are over 3600 CDCs in the U.S., see "About Us" portion of their web site at [www.ncced.org](http://www.ncced.org).
93. The problem of loss of local leadership due to corporate consolidation, and the potential for higher education playing a stronger role in local economic development, are among many topics discussed in Beth Siegel and Andy Waxman, "Third-Tier Cities: Adjusting to the New Economy." Mt. Auburn Associates, report to U.S. Economic Development Administration (Review of Economic Development Literature and Practice: No. 6, 2001). This insightful paper provides a good general discussion of the problems facing older, smaller cities (population of 15,000 to 110,000), and of possible solutions to these problems.
94. Timothy Bartik, "Evaluating the Impacts of Local Economic Development Policies on Local Economic Outcomes: What Has Been Done and What is Doable?," paper presented on November 20, 2002 at Conference on "Evaluating Local Economic and Employment Development," organized by the Local Economic and Employment Development (LEED) Programme of OECD (Organization for Economic Cooperation and Development). This paper is available at the Upjohn Institute's web site at [www.upjohninst.org](http://www.upjohninst.org).
95. Sara Hinkley and Fiona Hsu, "Minding the Candy Store: State Audits of Economic Development," (Washington, D.C.: Good Jobs First, 2000).
96. Harry Hatry, Mark Fall, Thomas Singer and Blaine Liner, *Monitoring the Outcomes of Economic Development Programs* (Washington, DC: The Urban Institute Press, 1990).

## References

- ACCRA. Undated. *Local Economic Development Handbook*. Arlington, VA: ACCRA. Available at <www.accra.org>. (Updated periodically.)
- ACIR. 1981. *Regional Growth: Interstate Tax Competition*. ACIR report no. A-76. Washington, DC: ACIR.
- Adkins, Dinah. 2002. *A Brief History of Business Incubation in the United States*. Athens, OH: National Business Incubation Association.
- Allanach, Christopher and Scott Loveridge. 1998. "An Assessment of Maximum-Training Business Visitation Programs." *Economic Development Quarterly* 12(2): 125–136.
- Barley, David, Deborah Markley, David Freshwater, Julia Sass Rubin, and Ron Shaffer. 2000. *Establishing Nontraditional Venture Capital Institutions: Lessons Learned*. Columbia, MO: Rural Policy Research Institute.
- Bartik, Timothy, Peter Eisinger, and George Erickcek. 2003. "Economic Development Policy in Michigan." In *Michigan at the Millennium*, Charles Ballard, Paul Courant, Doug Drake, Ron Fisher, and Elizabeth Gerber, eds. East Lansing, MI: Michigan State University Press.
- Bartik, Timothy. 2002. "Evaluating the Impacts of Local Economic Development Policies on Local Economic Outcomes: What Has Been Done and What is Doable?" Paper presented at the Local Economic and Employment Development (LEED) Programme of OECD (Organization for Economic Cooperation and Development Conference, "Evaluating Local Economic and Employment Development," held in Vienna, November 20.
- . 2001. *Jobs for the Poor: Can Labor Demand Policies Help?* New York and Kalamazoo, MI: Russell Sage Foundation and W.E. Upjohn Institute for Employment Research.
- . 1993. "Who Benefits From Local Job Growth—Migrants or the Original Residents?" *Regional Studies* 27(4): 297–311.
- . 1992. "The Effects of State and Local Taxes on Economic Development: A Review of Recent Research." *Economic Development Quarterly* 6(1): 102–110.
- . 1991. *Who Benefits From State and Local Economic Development Policies?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- . 1990. "The Market Failure Approach to Regional Economic Development Policy." *Economic Development Quarterly* 4(4): 361–370.

- Batt, Rosemary and Paul Osterman. 1993. "Workplace Training Policy: Case Studies of State and Local Experiments." Working paper no. 106. Washington, DC: Economic Policy Institute.
- Bednarzik, Robert. 2000. "The Role of Entrepreneurship in U.S. and European Job Growth." *Monthly Labor Review* (July): 3–16.
- Benus, Jacob, Terry Johnson, Michelle Wood, Neelima Grover, and Theodore Shen. 1995. *Self-Employment Programs: A New Reemployment Strategy, Final Impact Analysis of the Washington and Massachusetts Self-Employment Demonstrations (December 1994)*. U.S. Department of Labor Unemployment Insurance Occasional paper no. 95-4. Washington, DC: U.S. Department of Labor.
- Berg, Linnea, Lynn Olson, and Aimee Conrad. 1991. *Causes and Implications of Rapid Job Loss Among Participants in a Welfare-to-Work Program*. Evanston, IL: Northwestern University Center for Urban Affairs and Policy Research.
- Berube, Alan. 2001. "Capital Access Programs: A Summary of Nationwide Performance." Washington, DC: U.S. Department of Treasury.
- Bishop, John. 1993. "Improving Job Matches in the U.S. Labor Market." *Brookings Papers: Microeconomics*, 335–400.
- Blair, John and Laura Reese, Eds. 1999. *Approaches to Economic Development: Readings from Economic Development Quarterly*. Thousand Oaks, CA: Sage Publications.
- Blakely, Edward J. and Ted K. Bradshaw. 2001. *Planning Local Economic Development: Theory and Practice*. Thousand Oaks, CA: Sage Publications.
- Bondonio, Daniel and John Engberg. 2000. "Enterprise Zones and Local Employment: Evidence from the States' Programs" *Regional Science and Urban Economics* 30: 519–549.
- Caskey, John and Robinson Hollister. 2001a. "Business Development Financial Institutions: Theory, Practice, and Impact." Institute for Research on Poverty Discussion paper no. 1240-01. Madison, WI: University of Wisconsin-Madison.
- . 2001b. "The Impact of Business Development Financial Institutions: A Review of Three Studies." Unpublished paper, Swarthmore College.
- . 1999. "Final Report on the Job Impact of the Enterprise Corporation of the Delta." Unpublished paper, Swarthmore College.
- Center for Urban Policy Research. 2002. *The Impact of EDA RLF Loans on Economic Restructuring*. New Brunswick, NJ: Rutgers University.



- Council for Urban Economic Development. Undated. "Business Visitation and Surveying." In *Local Economic Development Handbook: A Guide for Practitioners and Communities*. Arlington, VA: ACCRA.
- Chrisman, James. 2002. "Economic Impact of Small Business Development Center Counseling Activities in the United State: 2000–2001." Report prepared for the Association of Small Business Development Center.
- Daly, Herman. 1994. *For the Common Good: Redirecting the Economy toward Community, the Environment, and a Sustainable Future*. Boston, MA: Beacon Press.
- Davis, Steven, John Haltiwanger, and Scott Schuh. 1996. *Job Creation and Destruction*. Cambridge, MA: The MIT Press.
- Dresher, Denise. 1998. Web page on research parks at Department of City and Regional Planning, University of North Carolina at Chapel Hill. Available at <http://www.planning.unc.edu/courses/261/drescher/>.
- Dunne, Timothy, Mark Roberts, and Larry Samuelson. 1989. "Plant Turnover and Gross Employment Flows in the U.S. Manufacturing Sector." *Journal of Labor Economics* 7(1): 48–71.
- Fisher, Peter and Alan Peters. 1998. *Industrial Incentives: Competition Among American States and Cities*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Fisher, Ronald C. 1996. *State and Local Public Finance*. Chicago: Irwin.
- Fitzgerald, Goan and Nancey Green Leigh. 2002. *Economic Revitalization: Cases and Strategies for City and Suburb*. Thousand Oaks, CA: Sage Publications.
- Florida, Richard. 2002. *The Rise of the Creative Class*. New York: Basic Books.
- Florida, Richard and Gary Gates. 2001. "Technology and Tolerance: The Importance of Diversity to High Technology Growth." Paper for the Center on Urban and Metropolitan Policy, The Brookings Institution.
- Frieden, Bernard and Lynne Sagalyn. 1989. *Downtown, Inc.: How America Rebuilds Cities*. Cambridge, MA: The MIT Press.
- Furdell, Phyllis. 1994. *Poverty and Economic Development: Views From City Hall*. Washington, DC: National League of Cities.

- Greenbaum, Robert. 1998. *An Evaluation of State Enterprise Zone Policies: Measuring the Impact on Business Decisions and Housing Market Outcomes*. Doctoral dissertation, Carnegie Mellon University.
- Greenbaum, Robert and John Engberg. 1998. "The Impact of State Urban Enterprise Zones on Business Outcomes." Discussion paper no.98-20. Washington, DC: Center for Economic Studies, U.S. Bureau of the Census.
- Hatry, Harry, Mark Fall, Thomas Singer and Blaine Liner. 1990. *Monitoring the Outcomes of Economic Development Programs*. Washington, DC: The Urban Institute Press.
- Hecker, Daniel. 1999. "High-technology Employment: A Broader View." *Monthly Labor Review* (June): 18–28.
- Hettinger, James and Janette Burland. 1995. "Battle Creek Military Base Conversion Process." *Economic Development Commentary* 19 (2): 18–22.
- Hinkley, Sara and Fiona Hsu. 2000. "Minding the Candy Store: State Audits of Economic Development." Washington, DC: Good Jobs First.
- Inman, Robert P. 1979. "The Fiscal Performance of Local Governments: An Interpretative Review." In *Current Issues in Urban Economics*, edited by Peter Mieszkowski and Mahlon Straszheim. Baltimore: Johns Hopkins University Press.
- Innovation Associates. 2000. *Developing High-Technology Communities: San Diego*. Report prepared for the U.S. Small Business Administration.
- International City/County Management Association. 2001. *Brownfields Redevelopment: A Guidebook for Local Governments and Communities*, 2d ed. Washington, DC: ICMA.
- Jarmin, Ronald. 1999. "Evaluating the Impact of Manufacturing Extension on Productivity Growth." *Journal of Policy Analysis and Management* 18(1): 99–119.
- Kane, Matt and Peggy Sand. 1988. *Economic Development: What Works at the Local Level*. Washington, DC: National League of Cities.
- Kinsley, Michael J. 1997. *Economic Renewal Guide: A Collaborative Process for Sustainable Community Development*. Snowmass, CO: Rocky Mountain Institute.
- Kirshenber, Seth and Charles Bartsch. 1997. "Brownfields: Options and Opportunities." Washington, DC: International City/County Management Association.
- Koven, Steven, and Thomas Lyons. 2003. *Economic Development: Strategies for State and Local Practice*. Washington, DC: International City/County Management Association.

- LaPlante, Josephine. 1996. *Evaluating Social and Economic Effects of Small Business Development Assistance: Framework for Analysis and Application to the Small Business Assistance Programs of Coastal Enterprises, Inc.* University of Southern Maine: Edmund Muskie Institute of Public Affairs.
- Levere, Andrea and David Wingate. 1999. "Counting on Local Capital: Evolution of the Revolving Loan Fund Industry." *Community Investments* 11(1). Available online from the Federal Reserve Bank of San Francisco at [www.frbsf.org](http://www.frbsf.org).
- Levine, Ted. 2002. "Six Revolutions in Economic Development Marketing." *The IEDC Economic Development Journal* 1(1): 5–12.
- Malizia, Emil and Edward Feser. 1999. *Understanding Local Economic Development*. New Brunswick, NJ: Rutgers University Center for Urban Policy Research.
- Man, Joyce. 2001. "Introduction." In *Tax Increment Financing and Economic Development: Uses, Structures, and Impact*, Craig Johnson and Joyce Man, eds. Albany, NY: State University of New York Press.
- Mayer, Neil. 1998. *Saving and Creating Good Jobs: A Study of Industrial Retention and Expansion Programs*. Washington, DC: Center for Community Change.
- Miller, Thomas. 1993. *Of These Hills: A Review of Kentucky Highlands Investment Corporation; Facts, Stories, Lessons, Questions, and Return on the Taxpayers' Investment*. Unpublished monograph.
- Moe, Richard and Carter Wilkie. 1997. *Changing Places: Rebuilding Community in the Age of Sprawl*. New York: Henry Holt.
- Molina, Frieda. 1998. *Making Connections: A Study of Employment Linkage Programs*. Washington, DC: Center for Community Change.
- Molnar, Lawrence, Donald Grimes, Jack Edelstein, Rocc DePietro, Hugh Sherman, Dinah Adkins, and Lou Tornatzky. 1997. *Impact of Business Incubator Investments*. Athens, OH and Ann Arbor, MI: National Business Incubation Association and University of Michigan.
- National Business Incubation Association. Undated. "Business Incubation Facts." Available online at [www.nbia.org](http://www.nbia.org).
- National Center for Small Communities. 1997. *Harvesting Hometown Jobs*. Washington, DC: National Center for Small Communities.

- National Governors Association. 2002. *A Governor's Guide to Building State Science and Technology Capacity*. Washington, DC: National Governors Association.
- Nexus Associates. 1999. "A Record of Achievement: The Economic Impact of the Ben Franklin Partnership." Belmont, PA: Nexus Associates.
- Oakland, William and William Testa. 1996. "State-Local Business Taxation and the Benefits Principle." *Federal Reserve Bank of Chicago Economic Perspectives* 20(1): 2–19.
- Oldsman, Eric and Jack Russell. 1999. "The Industrial Resource Center Program: Assessing the Record and Charting the Future." Unpublished report prepared for the state of Pennsylvania.
- Papke, Leslie. 1994. "Tax Policy and Urban Development: Evidence from the Indiana Enterprise Zone Program." *Journal of Public Economics* 54(1): 37–49.
- Peirce, Neal. 2002. "State, Local Corporate Subsidies: A New Coalition for Accountability." Syndicated column for *Washington Post Writers' Group*, August 5. Available on-line at <<http://www.postwritersgroup.com/archives/peir0805.htm>>.
- Peters, Alan and Peter Fisher. 2002. *State Enterprise Zone Programs: Have They Worked?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Poole, Kenneth, George Erickcek, Donald Iannone, Nancy McCrea, and Pofen Salem. 1999. *Evaluating Business Development Incentives*. Washington, DC: National Association of State Development Agencies.
- Price Waterhouse. 1992. *Evaluation of the 7(a) Guaranteed Business Loan Program*. Unpublished final report prepared for the U.S. Small Business Administration.
- Raphael, Stephen. 1998. "The Spatial Mismatch Hypothesis and Black Youth Joblessness: Evidence from the San Francisco Bay Area." *Journal of Urban Economics* 43(1): 71–111.
- Robertson, Kent. 2001. "Downtown Development: Key Trends and Practices." Policy Brief 8, University of Missouri-St. Louis Public Policy Research Center. Available on-line at <[http://www.cardi.cornell.edu/cd\\_toolbox\\_2/tools/downtown\\_trends.cfm](http://www.cardi.cornell.edu/cd_toolbox_2/tools/downtown_trends.cfm)>.
- Rosenfeld, Stuart. 2002a. *A Governor's Guide to Cluster-Based Economic Development*. Washington, DC: National Governors Association.
- . 2002b. *Just Clusters: Economic Development Strategies that Reach More People and Places*. Carrboro, NC: Regional Technology Strategies.

- Rubin, Barry and Margaret Wilder. 1989. "Urban Enterprise Zones: Employment Impacts and Fiscal Incentives." *Journal of the American Planning Association* 55(4): 418–431.
- Rubin, Marilyn. 1991. "Urban Enterprise Zones in New Jersey: Have They Made a Difference?" In *Enterprise Zones: New Directions in Economic Development*, Roy Green, ed. Newbury Park, CA: Sage Publications.
- Salvensen, David and Henry Renski. 2002. "The Importance of Quality of Life in the Location Decisions of New Economy Firms." Report for the U.S. Economic Development Administration.
- Sherman, Hugh and David Chappell. 1998. "Methodological Challenges in Evaluating Business Incubator Outcomes." *Economic Development Quarterly* 12(4): 313–321.
- Shuman, Michael. 2000. *Going Local*. New York: Routledge.
- Siegel, Beth and Andy Waxman. 2001. "Third-Tier Cities: Adjusting to the New Economy." Somerville, MA: Mt. Auburn Associates.
- Summers, Lawrence and James Poterba. 1994. "Time Horizons of American Firms: New Evidence from a Survey of CEOs." In *Capital Choices: Changing the Way America Invests in Industry*, Michael Porter, ed. Boston, MA: Harvard Business School Press.
- U.S. Bureau of the Census. 1991. *Government Finances: 1988–1989*. Washington, DC: Government Printing Office.
- U.S. Conference of Mayors. 2000. *Recycling America's Land: A National Report on Brownfields Redevelopment*, Vol. 3. Washington, DC: U.S. Conference of Mayors.
- U.S. Department of Commerce. 2002. "The Manufacturing Extension Partnership: Delivering Measurable Returns to Its Clients." Washington, DC: National Institute of Standards and Technology.
- . 1999. *Innovative Local Economic Development Practices*. Washington, DC: Economic Development Administration.
- . 1991. *Survey of Current Business*. Washington, DC: Bureau of Economic Analysis.
- U.S. Department of Housing and Urban Development. Undated. Economic Development Programs. Washington, DC: U.S. Department of Housing and Urban Development. Available at <<http://www.hud.gov/offices/cdp/economicdevelopment/programs/rc/index.cfm>>.

- U.S. Department of Housing and Urban Development. Undated. "Dallas Brownfields Program Spurs Neighborhood Revitalization." Office of Policy Development and Research. Available at <[www.hud-user.org/periodicals/fieldworks/0402/fworks2.html](http://www.hud-user.org/periodicals/fieldworks/0402/fworks2.html)>
- U.S. Small Business Administration. 2001. "Annual Report on Small Business and Competition." In *The State of Small Business: A Report of the President, 1999–2000*. Washington, DC: Government Printing Office.
- . 1998. *Performance Measurement in the SBDC Program, Inspection Report No. 98-09-01*. Washington, DC: US-SBA.
- U.S. Small Business Administration. 2001. *SBA: Small Business Development Centers-A Program Review 2001*. Available on-line at <<http://www.sba.gov/sbdc/programreview2001/SBARreport.html>>.
- Warner, Mildred, James Quazi, Brooks More, Ezra Cattan, Scott Bellen, and Kerim Odekon. 2002. "Business Improvement Districts: Issues in Alternative Local Public Service Provision." Working paper, Department of City and Regional Planning, Cornell University. Available on-line at <<http://www.cce.cornell.edu/restructuring/>>.
- Wasylenko, Michael. 1997. "Taxation and Economic Development: The State of the Economic Literature." *New England Economic Review* (March/April): 37–52.
- World Bank. 2002. *Local Economic Development: A Primer*. Washington, DC: World Bank. Available on-line at <[www.worldbank.org/urban/led](http://www.worldbank.org/urban/led)>.