

Understanding Entrepreneurship Promotion as an Economic Development Strategy: A Three-State Survey

by Erik R. Pages and Kenneth Poole

A Joint Project of the National Commission on Entrepreneurship and the Center for Regional
Economic Competitiveness

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INTRODUCTION

The field of economic development has undergone a series of transformations over the past few decades. Traditional programs that emphasize recruiting of companies continue to dominate the field, but newer innovative practices are also emerging. For example, as recently as 15-20 years ago, few economic developers considered tourism development as part of their job descriptions. Today, such activities are commonplace. Cluster development is another new approach to developing local economies that is gaining adherents across the country.

Entrepreneurial development--the practice of encouraging the creation and growth of start-up companies--represents another emerging set of innovative development practices. Beginning in the mid-to-late 1980s, a number of economic development organizations began to aggressively encourage local start-ups through the provision of technical assistance, financial support, and the like. These initiatives further expanded during the economic boom of the 1990s.¹

This growing interest has many causes. The transformation of the American business landscape tops the list. For a variety of reasons, fast-growing new businesses have assumed a more important role in the American economy, driving innovation and creating new jobs. The large manufacturing facility--long considered the holy grail for most economic developers--has become a more elusive target as plants move overseas to take advantage of lower labor costs and larger facilities become more capital intensive. In response, economic developers have had to re-focus on new strategies aimed at increasing the size of home-grown businesses, and entrepreneurial development forms a key part of this new perspective.

As interest in entrepreneurship has grown, a host of new programmatic initiatives have sprouted at the federal, state and local levels. In some cases, new programs are created. In others, existing programs are re-targeted or simply renamed as a means to foster entrepreneurial activity. Yet, in all cases, the growth in new initiatives has been remarkable.

While anecdotal evidence about the boom in entrepreneurial development is compelling, we lack hard data about the phenomenon. For example, how many entrepreneurial development programs exist in the US and how much funding supports this mission? We also lack good information about what constitutes a typical entrepreneurial development organization and what are its primary features. Finally, as in many areas of economic development policy, we lack a series of performance measures for assessing both the effectiveness of specific programs and the economic impacts resulting from aiding entrepreneurial companies.

In an effort to better understand the current state of entrepreneurial development policy, the National Commission on Entrepreneurship (NCOE) and ACCRA's Center for Regional Competitiveness, with support from the Ewing Marion Kauffman Foundation, have begun a series of research reports on these questions. This joint project seeks to assess the overall level of investment in entrepreneurial development programs across the U.S. It also seeks to assess the overall return on investment from such programs. In other words, what are the economic impacts of support for the creation and growth of new businesses? And, how do these returns compare to those generated by other forms of public investment?

This project will generate a number of reports. In this first report, we discuss the results of a survey of entrepreneurial development programs in three states: Maine, Nevada, and

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¹ See Erik R. Pages et al., "The Rise of Entrepreneurship as an Economic Development Strategy," in David Hart (ed.), *Entrepreneurship and Public Policy* (Cambridge: Cambridge University Press, forthcoming).

Pennsylvania. These three states serve as a "test sample" for future surveys that will examine entrepreneurship development investments across the U.S.

This test sample produced a number of interesting findings. While findings from only three states cannot be generalized to represent national results, they do indicate several interesting trends, which include:

Investment in Entrepreneurship

- The average budget allocated to entrepreneurial development is approximately \$970,161. That represents nearly 43 percent of the average \$2.25 million economic development budget. Many programs that might be considered small business or technology development are likely included in these expenditure data.
- Entrepreneurial development programs enjoyed a slightly higher increase in budget allocations during the past three years than did economic development as a whole. The average reported increase in entrepreneurial development program budgets during the past three years was 16.2 percent as compared with a 14.1 percent increase in economic development budgets during the same time period.
- States represent an important revenue source for the entrepreneurial development budgets of these organizations, accounting for an average of 37 percent of entrepreneurial development budgets. For organizations in which entrepreneurial development was the highest priority, states accounted for more than half (52 percent) of the resources available to support entrepreneurial development activities
- Size of entrepreneurial development efforts matter. Gaining critical mass in the size of these programs ensures that they have greater political clout in competing for the limited resources available for entrepreneurial development efforts.
- Regionalism begets a stronger interest in entrepreneurship. The average budget available is about \$1.5-\$1.6 million for regional and state entrepreneurial development initiatives as opposed to the average single-jurisdiction initiative, which has only \$248,000 available. State and multi-county efforts tend to place a higher priority on entrepreneurial development than do more localized efforts. Regional cooperation may be an important vehicle for sharing the risk associated with entrepreneurial development efforts.

Program Offerings

- Pennsylvania with a wider array of programs tends to place a higher priority on entrepreneurial development, Maine devotes greater attention to business retention, and Nevada focuses on more traditional attraction activities. This pattern may reflect a diversity of program offerings rather than a difference in public policy philosophies.
- Nearly four of seven entrepreneurial development programs were created during the past decade. Since 1990, half of those new entrepreneurial development programs were created within local or regional economic development corporations; the remaining 50% were based in new stand-alone organizations.

Evaluation of Entrepreneurial/Economic Development

- Nearly 86 percent of all organizations surveyed report that they monitor their economic development programs using a variety of outcome and output measures. Those organizations targeted entrepreneurial development as their primary focus are more likely to monitor outcomes, with 95 percent reporting that they use one or more outcome measures.

- Job creation and new firm creation are the most commonly used measures of success. Furthermore, organizations expect to see outcomes from economic and entrepreneurial development programs within 16 months.

I. WHAT IS ENTREPRENEURIAL DEVELOPMENT?

Traditionally, economic developers have maintained that businesses and communities can grow through three different strategies: attracting new companies, retaining and growing existing companies, and starting new companies. Within these broad categories, public agencies may influence business investment decisions through one or more of four vehicles: 1) Regulatory and permitting policies, 2) Tax and incentive policies, 3) Non-financial assistance, and 4) Direct financial assistance.

Each of these is a critical area of public policy deserving study. In certain industries, for instance, regulatory policy may determine whether entrepreneurial opportunities exist. Deregulation of the telecommunications and transportation industries in the 1980s had a powerful stimulus effect on entrepreneurship in the US.² Likewise, tax incentives are important, but information about the total revenues foregone is difficult to gather, and "valuing" these policies in terms of costs to the public sector can be extremely difficult.³

For these reasons, we decided to examine only two categories of economic development programs that support entrepreneurs: non-financial assistance and direct financial incentive programs. Non-financial incentives may be important in helping to overcome the information and expertise gaps that challenge entrepreneurs. Network building, small business counseling, and similar support can be critical factors in influencing the success of entrepreneurs, but their value to the entrepreneur is difficult to quantify. Because of this limitation, we simply opted to measure overall program budgets for these activities.

Public investments in direct financial assistance programs are budgeted items that most organizations report as part of their annual public budgets or financial statements. They can include the direct financial assistance provided to individuals or firms as well as the administrative costs associated with operating these programs. The information about both financial and non-financial assistance is available in the budgets of most organizations, but the budget information is rarely organized in a way that is useful in distinguishing entrepreneurial development activities from attraction, retention, or more general community improvement activities.

Our research builds on previous survey work by the National Association of State Development Agencies (NASDA) and the Council for Urban Economic Development (CUED) that sought to quantify the absolute level of nationwide economic development investments.⁴ The data in these past surveys vary widely. For example, a recent survey of state economic development programs identified more than \$2.7 billion spent annually in direct financial and non-financial assistance programs.⁵ Investments in entrepreneurial development programs accounted for less than 1 percent of that investment using the NASDA definition. Yet, the results from these past efforts offer only limited guidance as entrepreneurial development was not the core focus of study. Moreover, the surveys did not include a specific definition of what constitutes entrepreneurial development.

² National Commission on Entrepreneurship (NCOE), *American Formula for Growth: Federal Policy and the Entrepreneurial Economy, 1958-1998*, (Washington, DC: NCOE, 2002).

³ Kenneth Poole et al., *Evaluating Business Development Incentives*, (Washington, DC: National Association of State Development Agencies, 1999).

⁴ National Association of State Development Agencies, *State Economic Development Expenditure Survey*, (Washington, D.C.: NASDA, 1998); Council for Urban Economic Development, *Trends in Economic Development Organizations*, (Washington, DC: CUED, 1996).

⁵ National Association of State Development Agencies, *State Economic Development Expenditure Survey CD-Rom*, 2002. Available at www.nasda.com.

This study first makes an explicit effort to define entrepreneurial development in a way that might be applied to an examination of economic development efforts. We define the term to include activities that support or foster new business start-ups, and provide access to appropriate space, facilities, equipment, training, education, and capital. A wide variety of programs fall within this general definition. Examples include:

⇒ **Direct counseling for start-ups**

Many organizations, including small business development centers, entrepreneurial networks, and incubators offer management and technical assistance programs designed to increase awareness about entrepreneurship and provide generalized assistance on how to start and operate a business.

⇒ **Entrepreneurial education**

Colleges and universities as well as small business development centers commonly offer training courses – typically available to small groups of entrepreneurs – on how to start up a business, how to develop and implement a business plan, and a variety of aspects of the small business development process.

⇒ **Assistance with facilities/space (e.g., equipment acquisition or incubators)**

Incubators are common mechanisms that are used to encourage and support a wide variety of young companies until they become viable. Not only do these facilities provide new firms with affordable space, but they also provide technical and management support for these companies, provide advice on how to secure equity and long-term debt financing and locate qualified employees. In some cases, these programs help companies by leasing access to highly specialized technical equipment or providing shared services, including receptionist and conference facilities.

⇒ **Seed/venture capital**

Capital formation involves the (1) “management or operation” of programs designed to provide access to capital or (2) “direct financial investment” in companies or capital pools designed to directly provide capital to entrepreneurial firms. Thus, programs to hold seed or venture capital forums or form angel networks would provide “management” support to capital formation while programs that invest directly in projects or leverage capital to be invested in private funds would provide seed capital (e.g., financing to help complete a product prototype) or venture capital (e.g., risk capital offered at the initiation of production and marketing efforts).

Project Design

To address the lack of data and better understand the investments made in entrepreneurship, we conducted a survey of economic and entrepreneurial development organizations during the late spring and early summer 2002. The surveys were conducted in Maine, Nevada, and Pennsylvania. These three states were selected for several reasons:

- They have expressed a public commitment to entrepreneurial development as a tool for fostering economic prosperity.
- They provide variance across key variables including population size, geographical location, entrepreneurial development traditions, and recent economic performance.
- They offer differing perspectives on the entrepreneurship challenge. Maine is a predominantly rural state, while Pennsylvania is a large, diverse state with major metropolitan communities as well as large rural areas. Finally, Nevada includes one

major urban center (Las Vegas) and predominantly rural regions throughout the rest of the state.

- They differ in terms of recent economic performance. Nevada's economy continues to boom, even during the current downturn.⁶ Maine and Pennsylvania have had more mixed economic performance in recent years.⁷

We began the project by reviewing existing definitions of entrepreneurial development and entrepreneurship programs and policies. Initial telephone interviews with 12 key economic developers in the three states reinforced our concern that varying perspectives and definitions could create confusion during the interview process. We recognized that we would need to offer a definition of entrepreneurship and entrepreneurial development in order to ensure that our respondents were answering questions about their activities using a similar framework. For entrepreneurship, we used the definition proffered by the Ewing Marion Kauffman Foundation -- "entrepreneurship refers to the rapid growth of new and innovative businesses and is associated with individuals who create or seize business opportunities and pursue them without regard for resources under their control."⁸ This basic definition was supplemented with the listing of typical entrepreneurial development programs cited above.

Interviewees were asked to identify the most significant economic or entrepreneurial development entities as well as those considered to be "opinion leaders" in terms of new approaches and ideas for economic development. A review of the network of economic development organizations in Maine, Nevada, and Pennsylvania turned up 518 organizations or agencies that one might commonly describe as an economic development entity. Among the types of economic development organizations identified in this group were state and local economic development organizations, small business development centers, regional technology councils, larger chambers of commerce, local public economic development agencies, university

⁶ Nevada's employment base grew fastest of the three states, even during the downturn of 2001 when employment grew at 3.8 percent between 2000 and 2001. Between July 2001 and July 2000, employment grew at 2.5 percent. Between January and July 2002, employment grew at 3.4 percent, but this was still well above the national average of 2.4 percent. Unemployment was highest in Nevada among the three states in July at 5.5 percent, yet this was also below the national unemployment rate of 6.0 percent. The state's dependence on a single industry--tourism--remained an important weakness in this economic climate. Nevada Department of Employment, Training and Rehabilitation, Labor Market Information, Sept. 2002.

⁷ During the recent economic slowdown, Maine endured the most significant job losses, with employment declining 1.1 percent between 2000 and 2001. Between July 2001 and July 2002, Maine's employment grew at very slow pace of 0.4 percent. Since the beginning of 2002, however, Maine's employment grew faster than any of the other three states at a rate of 6.8 percent between January and July 2002. Unemployment in Maine was lowest among the three states at 3.4 percent. The state appeared to have responded effectively as it transitioned through the recent slowdown and appeared to be coming back faster than the other states as well. Maine Department of Labor, Labor Market Information Services, Sept. 2002.

In Pennsylvania, unemployment held at 5.5 percent, but job growth during the first half of 2002 actually outpaced Nevada at 3.6 percent. During 2000-01 timeframe, Pennsylvania's employment grew by 1.1 percent, but during the July 2001-July 2002 period, employment actually declined by 0.4 percent as unemployment continued to climb in the state. The state's major metro areas, Philadelphia and Pittsburgh, were particularly hard hit with nearly 80 percent of the state's net employment declines in the prior 12-month period. Pennsylvania Department of Labor and Industry, Labor Market Information Database, Sept. 2002.

⁸ Jay Kayne, *State Entrepreneurship Policies and Programs*, (Kansas City: Ewing Marion Kauffman Foundation, 1999), p. 3.

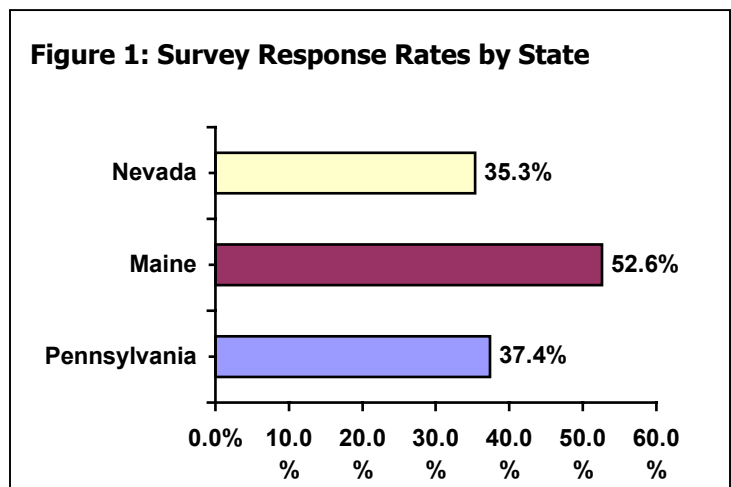
entrepreneurial outreach initiatives, incubator facilities, and other not-for-profit development organizations.

Selected individuals from key state and local development organizations were interviewed to determine which organizations should be included in our survey. Using a “snowball sampling technique,” we polled initial interviewees to identify opinion leaders in the economic development field and added these suggested organizations to the survey sample. We then identified other organizations of a similar type throughout the state and included them in our sample as well. This technique was not designed to generate a random sampling. Instead, we hoped to gain the insights of those who might have the greatest influence among their peers on future policy direction. Through those interviews and subsequent research, we identified individuals working for 238 different organizations for inclusion in the survey. These organizations represent approximately 46 percent of all economic development entities identified in the three states.

Survey Analysis

We mailed the survey with a postage-paid business reply envelope to this sample of 238 organizations, mailed a follow-up letter (with a postage-paid business reply envelope), and finally made phone calls to remind those who had not responded to the survey. Using this technique, we received 97 useable responses, resulting in a 40.8 percent response rate overall. More than half (53 percent) of the Maine organizations responded while more than one third of the Pennsylvania and Nevada organizations responded (at 37 percent for Pennsylvania and 35 percent for Nevada).⁹

Figure 1: Survey Response Rates by State



Of the database of 518 economic development-related organizations in the three states, 55 percent serve a locality (single county, municipality, or neighborhood). Our smaller sample was skewed toward organizations serving a statewide or regional constituency. Thirty-seven (37 percent) respondents indicated that they serve a multi-county area. By comparison, 35 percent of the 518 economic development entities serve a multi-community or multi-county region. An additional 19 respondents (20 percent) indicating that they served the entire state while less than 10 percent of the 518 organizations in the larger ACCRA database appeared to serve statewide constituencies.¹⁰

⁹ In Maine, the Governor provided a letter of support which was included in the first mailing. This letter could account for the higher response rate in Maine as the governor has expressed a keen personal interest in entrepreneurial development as an economic development approach. This is interesting to contrast with Nevada and Pennsylvania. In Nevada, the state’s Lieutenant Governor provided a letter of support for the project while no such comparable letter of support was forthcoming from policy leaders in Pennsylvania.

¹⁰ Pennsylvania organizations represent 57 percent of the survey respondents. This compares with organizations from the state representing approximately 60 percent of the universe of economic development organizations (in the universe of 518 organizations). Maine organizations accounted for 31 percent of the responses as compared with 25 percent in the universe of organizations. Nevada organizations represented 12 percent of the survey responses and 15 percent of the organizations in the universe as defined for the study. Thus the survey sample has a slight over-representation of

ECONOMIC DEVELOPMENT ORGANIZATIONS: MISSION

Importance of Entrepreneurial Development

Each organization was asked to rank the importance of the objectives of business attraction, retention, and start-up to their economic development strategy. Among the survey respondents, retention and expansion slightly outpaced entrepreneurial development efforts as the most important priority among economic development organizations, with attraction following as a distant third.

Ranking	Importance of Activities		
	Attracting new companies	Promoting the expansion or retention of existing companies	Encouraging entrepreneurial development
First	25.8%; 24.0	52.1%; 49.0	47.9%; 46.0
Second	19.4%; 18.0	43.6%; 41.0	27.1%; 26.0
Third	54.8%; 51.0	4.3%; 4.0	25.0%; 24.0
Totals	100.0%; 93.0	100.0%; 94.0	100.0%; 96.0

Business attraction efforts have the longest track record in economic development, dating from Mississippi's efforts to recruit industry in the 1940s. Many economic development organizations were originally established with business attraction as their primary focus – even among organizations created in the 1980s and 1990s. Since the 1980s, however, business retention programs have become staples of many development

organizations. Our survey results reflect this evolution in program emphasis.

Organizational History/Characteristics

A quick glance at organizational histories tells us a great deal about the evolution of economic development missions. The case of Pennsylvania is instructive. Pennsylvania has a long track of record of creating innovative economic development programs. In the 1950s, it opened the first state industrial financing agency (Pennsylvania Industrial Development Authority), and, in the 1980s, it created one of the first state technology development agencies—the Ben Franklin Technology Partnership. Because of this legacy, Pennsylvania hosts numerous ED organizations that promote entrepreneurial development and business retention strategies. Their presence in the survey likely explains our findings on organizational missions. In Pennsylvania, more than half of the organizations (29--54 percent) rated entrepreneurial development as the most important priority while only a few (10--19 percent) rated business attraction as their number one priority. On the other hand, nearly 2/3rds of Maine organizations (19--65.5 percent) rated business expansion and retention has their highest priority while half of Nevada organizations (6 respondents) ranked business attraction highest and half ranked business expansion and retention highest (6 respondents).

Organizational histories within each state generate some useful findings. Overall, the survey shows that entrepreneurial development still remains a relatively new phenomenon. Nearly 57 percent of all entrepreneurial development programs have been created since 1990, with 12 percent of the total being established in the past two years. At the same time, less than 9 percent of organizations indicated that they had an entrepreneurship program in place prior to 1980.

state-level economic development professionals and Maine participants. Local economic development organizations appear to be slightly under-represented in this sample of opinion leaders.

These findings differ significantly across states. Thanks to the creation of the Ben Franklin Partnership and other initiatives, Pennsylvania had most (76%) of its entrepreneurship program infrastructure in place by 1990. Maine and Nevada are comparative newcomers as the majority of their programs were created since 1990.

Entrepreneurial development programs also tend to be managed somewhat differently than other economic development efforts. Older programs (like the Ben Franklin Partnership) tend to exist in "stand-alone" entrepreneurship or technology development organizations; newer initiatives tend to operate as a division or a program within a larger entity. This shift may reflect the "mainstreaming" of entrepreneurial development as a core economic development activity in the states.

Newer entrepreneurship programs are not just associated with multi-mission economic development entities. These efforts also tend to be associated with regional (as opposed to single-jurisdiction) initiatives. Regional cooperation may be an important vehicle for sharing the risk associated with entrepreneurial development efforts. Organizations serving individual communities tend to rate entrepreneurial development as a lower priority than those serving the state or a multi-county region. Of the 19 respondents who represented a municipality, 11 (or 58 percent) rated entrepreneurship as their lowest priority below business attraction and retention while 6 (or 32 percent) rated entrepreneurship as their highest priority. Meanwhile, organizations serving the entire state or a multi-county region were more likely to consider entrepreneurial development a high priority with 58 percent rating entrepreneurial development as their highest priority and only 14 percent rating it as their lowest priority.

Many of the organizations indicated that their clients come from a combination of urban, rural, and suburban settings. Few appear to focus solely on rural or inner-city clients, for instance. We found no relationship between client location (urban vs. rural) and the importance of entrepreneurial development as an organizational mission.

Table 2: Entrepreneurial Development as a Proportion of Economic Development Investment By State

	Overall	Pennsylvania	Maine	Nevada
Avg. Economic Dev Budget	\$2,253,693	\$3,217,531	\$825,833	\$1,754,167
Avg. Entrepreneurial Dev Budget	\$970,161	\$1,299,519	\$524,167	\$509,091
Proportion of Economic Dev Budget dedicated to Entre. Dev	43.0%	40.4%	63.5%	29.0%

Table 2A: Entrepreneurial Development as a Proportion of Economic Development Investment By Type of Service Area

	Overall	Local	Multiple Jurisdictions	Statewide
Avg. Economic Dev Budget	\$2,253,693	\$495,161	\$3,629,688	\$3,362,500
Avg. Entrepreneurial Dev Budget	\$970,161	\$247,656	\$1,483,333	\$1,567,647
Proportion of Economic Dev Budget dedicated to Entre. Dev	43.0%	50.0%	40.9%	46.6%

Table 2B: Entrepreneurial Development in Organizations Targeting Entrepreneurship as their Highest Priority By Type of Service Area

	Overall	Local	Multiple Jurisdictions	Statewide
Avg. Economic Dev Budget	\$2,166,026	\$478,125	\$3,296,667	\$2,395,833
Avg. Entrepreneurial Dev Budget	\$1,688,068	\$219,444	\$2,319,737	\$2,204,167
Proportion of Economic Dev Budget dedicated to Entre. Dev	77.9%	45.9%	70.4%	92.0%

ORGANIZATIONAL CHARACTERISTICS: Expenditures

Combined, the 97 respondent organizations in the three states invested an estimated \$628 million in a variety of economic development activities. Of that total, one respondent – the Commonwealth of Pennsylvania’s Dept of Community and Economic Development (Penn DCED)—reported \$400 million in expenditures, representing about 63 percent of the total expenditures. The next largest budget reported was the Ben Franklin Technology Partnership’s (BFTP’s) statewide program approximately \$28 million.¹¹

The average budget for all of the participating organizations (excluding Penn DCED and statewide BFTP, as noted) was \$2,253,693 as shown in Table 2. For organizations serving a single county or city, the average budget was smallest at \$495,161. For organizations serving multi-county or multi-city regional areas, the average expenditure was \$3,629,688. The average for organizations serving statewide constituencies was \$3,362,500. (See Table 2 for additional details and state breakdowns).

The survey respondents reported that their entrepreneurial development efforts accounted for 46 percent (slightly more than \$90 million) of all economic development expenditures (exclusive of Penn DCED and BFTP). On average, the survey respondents reported an average budget for entrepreneurial programs at \$970,161 or about 43 percent of the average economic development budget. Table 2A also demonstrates that the average budget for a local-serving organization was \$247,656; for a multi-community regional entity was \$1,483,333; and for a statewide entity was \$1,567,647.

Not surprisingly, higher levels of entrepreneurial development investment occur in organizations that rated this mission as their top priority. First, more 82 percent of total entrepreneurial development expenditures were made in organizations in this category (even after excluding Pennsylvania's DCED and the Ben Franklin Partnership’s statewide program from the spending totals). Second, the average budget for entrepreneurial development in these organizations was \$1.7 million--nearly 75 percent higher than the average of \$970,000 for all other organizations (see Table 2B). For organizations rating entrepreneurship as their highest priority, 78 percent of their budget, on average, is allocated to entrepreneurial development activities. Statewide organizations focused on entrepreneurship tend to be most greatly concentrated on these activities, allocating 92 of their expenditures to relevant activities while local development organizations who say that entrepreneurship is their most important priority allocated approximately 46 percent of their resources to these activities.

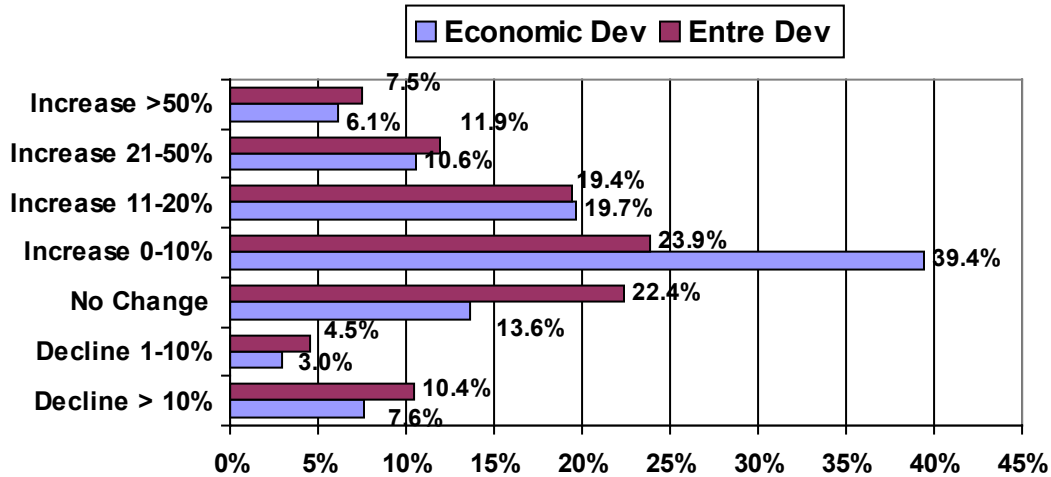
ORGANIZATIONAL CHARACTERISTICS: Budget Trends

The boom years of the 1990s were good, but not great, for most economic development programs. On average, economic development budgets grew by 14.1% during the past three years (or 4.7% per year). Most of the organizations reporting increased economic development budgets grew only modestly. As Figure 3 notes, the budget experiences of various programs varied wildly over the past three years. At one end of the spectrum, nearly 39 percent of the organizations reported a three-year increase of less than 10 percent. Meanwhile, six percent reported increases of greater than 50 percent.

¹¹ Because the state’s budget was such an extreme outlier, we opted to remove the department’s budget from the remainder of the analysis. In addition, we also removed the BFTP statewide budget, as all of the sub-state regional centers reported their budgets independently and we felt that reporting the statewide figure would overstate the amount of resources being invested in economic and entrepreneurial development.

Budgets for entrepreneurial development show a similar pattern. On average, entrepreneurial development budgets increased 16.2 percent during the past three years (or 5.4 percent per year). Approximately three in five (63 percent) indicated that their funding for these activities

Figure 3: Reported Change in Budget During the Past 3 Years for Economic & Entrepreneurial Development Programs



had increased during the past three years while more than one in five (22 percent) reported no changes in funding.

Interestingly, the lower the priority that the organization placed on entrepreneurial development, the greater was the likelihood that they would report such an increase. Nearly 70 percent of those that rated entrepreneurial development as their lowest priority indicated that it received an increase in support for entrepreneurial development while less than half (49 percent) of those organizations rating entrepreneurial development as their highest priority reported an increase. About 27 percent of this latter group reported no change in funding during the past three years. At the same time, 88 percent of those rating entrepreneurial development as their second priority reported funding increases.

Entrepreneurial development did not do quite as well as economic development in terms of attracting increased resources. About 76 percent of the organizations reported that they received increased funding for their economic development activities and 14 percent reported no change in their budget. However, organizations with entrepreneurial development as their highest priority were less likely to attract added economic development resources, with only 64 percent reporting an increase and 18 percent reporting no change in funding. Meanwhile 88 percent of respondents who identified business retention as their highest priority reported an increase during the past three years.

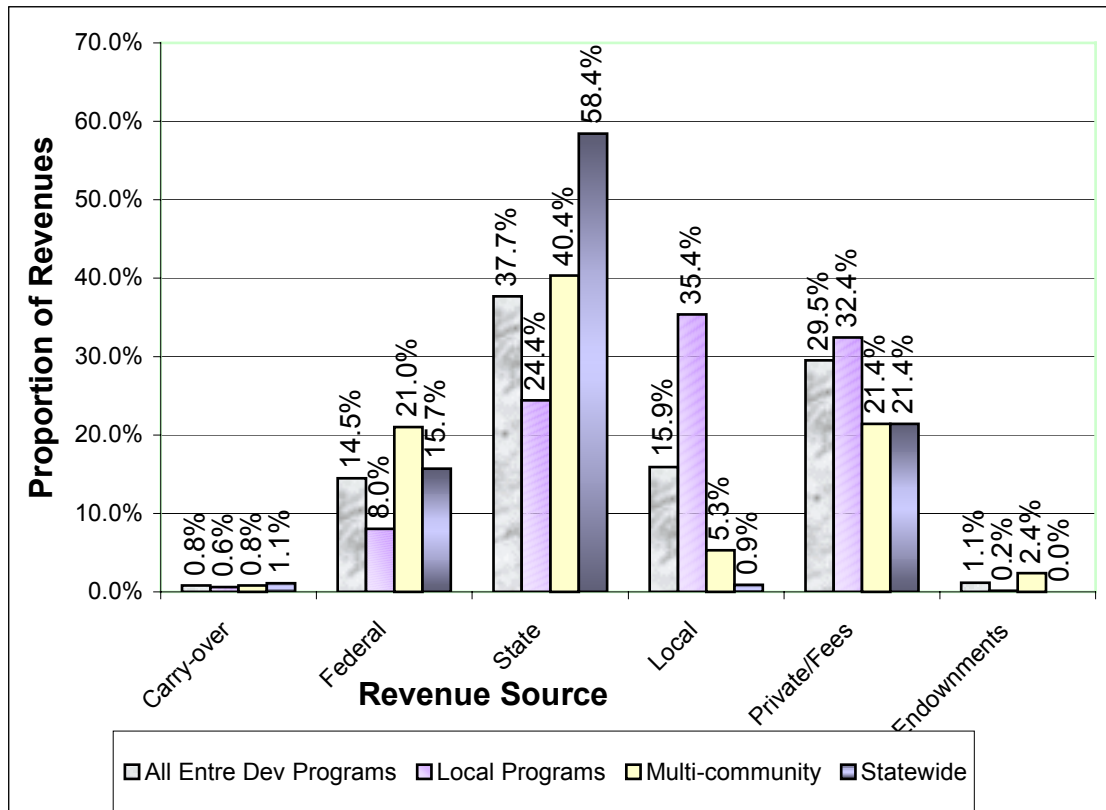
Organizations with larger entrepreneurial development budgets tend to be more successful in gaining increased funding than smaller organizations. This phenomenon was even more pronounced in organizations that were dedicated solely to entrepreneurial development. Approximately 76 percent of organizations with entrepreneurial development budgets of \$1 million or less were successful in obtaining increased funding during the past three years. By comparison, 94 percent of organizations with entrepreneurial development budgets exceeding \$1 million increased their funding. Among organizations that rated entrepreneurial development as their most important priority and had budgets for those activities below \$1 million, only 58 percent received increases in their entrepreneurial development budget during the past three years.

Size seems to matter less for overall economic development budget growth. While approximately 80 percent of the organizations reported that their economic development budget had increased during the past three years, there was a relatively small difference between the success of smaller organizations (those with budgets below \$1 million) and larger ones. About 78 percent of the smaller organizations reported increases in their economic development budgets while about 83 percent of the organizations with greater than \$1 million budgets reported increases.

ORGANIZATIONAL CHARACTERISTICS: Sources of Funding

Entrepreneurial development programs and more comprehensive economic development programs attract funding from similar sources. On average, approximately 38 percent of revenues for entrepreneurial development come from various state funding sources (See Figure 4). The next most common source was private funds and/or fee income from programs, accounting for 30 percent of the revenues. Local funds accounted for 16 percent of the revenues and federal funds accounted for nearly 15 percent.

Figure 4: Proportion of Entrepreneurial Development Budget by Revenue Source



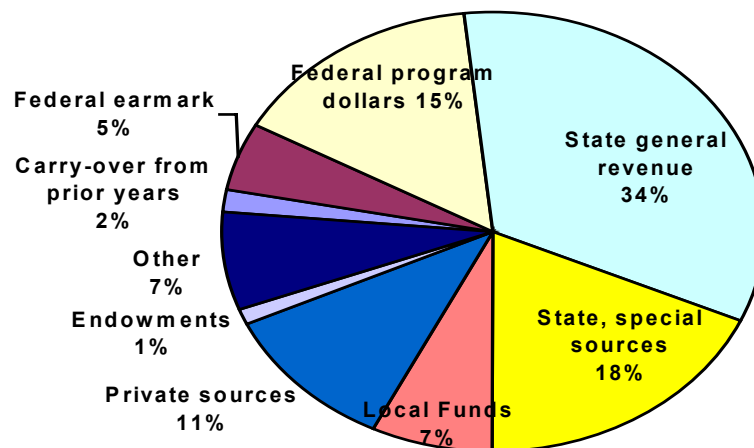
Local programs depend more heavily on local resources (35 percent), but private funds account for nearly one-third (32 percent) of revenues. About one quarter of local programs depend on state funding. Multi-community regional programs are dependent primarily on state (40 percent), federal (21 percent), and private (21 percent) sources. State programs gain most of their revenues from state funding sources (58 percent), but they also depend on private fee income as well.

Recognizing that Pennsylvania has a longer public tradition of supporting entrepreneurial development, we examined differences among the states. Indeed, Pennsylvania does have a

higher proportion of state revenues supporting entrepreneurial development activities – accounting for 40.3 percent of the resources in Keystone State organizations. By comparison, the state of Maine invests 31.9 percent of the entrepreneurial development resources for that state’s organizations and the state of Nevada invests 30.0 percent of the resources available for Nevada entrepreneurial development organizations. The difference in Pennsylvania investments is even more impressive when one remembers that the budgets for Pennsylvania organizations are generally higher on average than in Maine and Nevada. These state resources make up for differences in Federal program and earmark funding for entrepreneurial development. In terms of federal funds, Pennsylvania lags as federal resources account for only 14.3 percent of budgets. In contrast, federal funds account for 17.9 percent of budgets in Maine organizations, and 22.5 percent of Nevada organizations.

Figure 5 indicates the importance of state resources for the entrepreneurial development efforts of organizations that rate this mission as their highest priority. For this subset of

Figure 5: Revenue Sources for Organizations Ranking Entrepreneurial Development as Their Highest Priority



organizations, dependence on state revenues is quite high, accounting for more than 50% of agency budgets. Dependence on federal funds is also higher, reaching 20% of budgets. Not surprisingly, these organizations also receive less private funding (11% of budgets).

These patterns suggest that some of the newer entrepreneurial development initiatives may be emerging in response to statewide or national initiatives. As these programs mature, we should expect that a more diverse funding base will evolve. In addition, the surveys indicated growing interest in alternative funding sources, such as foundations, universities, and member institutions. Programs are also generating fees for services in the form of building and land sales/rentals, royalty income from businesses assisted, training and educational fees, and fees for consulting services.

ORGANIZATIONAL CHARACTERISTICS: Staffing

Staffing levels for both economic and entrepreneurial development activities remain relatively modest. The average economic development staff size is 13.0 with approximately 4.1 persons involved in entrepreneurial promotion. Organizations that place the highest priority on entrepreneurial development tend to have a slightly smaller staff---7.1 staff of which 5.8 persons are dedicated to entrepreneurial development activities. One in four organizations responding had no staff dedicated to entrepreneurial development.

Within states, staffing patterns generally follow the budget trends detailed above. Maine organizations were the smallest in our sample. The average organization had 4.8 staff person with 1.9 persons dedicated to entrepreneurial development activities. However, 41 percent of the organizations have no one responsible for this activity on a day-to-day basis.

In Nevada, groups were slightly larger. They averaged 6.6 economic development staffers, of which 2.0 persons are involved in entrepreneurial development efforts. Only 4 of 7 organizations (57 percent) had at least one person assigned to entrepreneurial development.

Pennsylvania-based organizations were relatively quite large. The average staff level was 22.3 with 8.3 people focused on entrepreneurial development activities. When large programs like the BFTP were removed from the sample, the relatively larger size of Pennsylvania organizations still stands out. With this revised sample, the average organization still employs 12.5 staff, with 5.0 persons dedicated to entrepreneurial development activities. Only 13 percent of the Pennsylvania organizations reported that they have no one assigned to entrepreneurial development activities. This pattern indicates that both economic development and entrepreneurial development have become much more of an institutionalized and formalized activity in Pennsylvania. As programs mature in Maine and Nevada, we should see a similar pattern develop.

ORGANIZATIONAL CHARACTERISTICS: Program Goals & Priorities

Survey participants were asked to indicate the primary goals and missions of their agencies. Not surprisingly, their answers were uniquely focused on their region's key economic challenges. In Nevada's heavily tourism-based economy, agency goals focused on economic diversification and the generation of new self-employment opportunities. In Pennsylvania and Maine, program managers stressed the importance of generating high wage/skilled jobs and economic

Table 3: Program Goals by State				
	Overall Ranking	Pennsylvania Ranking	Maine Ranking	Nevada Ranking
Local economic base diversification	1	2	2	1
High wage/skilled jobs	2	1	1	6
Competitiveness of the region	3	3	2	3
Expansion of tax base	4	5	4	3
Technology commercialization	5	4	7	10
Self-employment opportunities	6	6	6	2
Global visibility of the region	7	7	8	3
Employment opportunities for lower- or semi-skilled workers	8	9	5	8
Support research and development	9	8	8	9
Business ownership for target populations	10	9	10	7
Other program goals	11	11	11	11

diversification. These program goals did not differ greatly when we compared overall economic development activities and entrepreneurial development activities.

ORGANIZATIONAL CHARACTERISTICS: Typical Services

Each respondent was asked to identify their various program offerings. Nearly two-thirds indicated that they offered one or combination of the following services:

- Marketing and product promotion assistance
- Management assistance and start-up advice

Table 4: Entrepreneurial Development Services Offered

Which of the following entrepreneurial development services, if any, does your organization provide on a regular basis to client companies for your service area or region? (check all that apply)

	Overall	Percent
All Respondents	97	100.0%
Help with marketing (e.g. product promotion, access to new markets)	62	63.9%
Management assistance and advice to start-up entrepreneurs	61	62.9%
Help for existing or potential entrepreneurs with overcoming or understanding regulatory or permitting issues for new enterprises	60	61.9%
Training for potential business owners	60	61.9%
Facilitate the development of peer networks and membership	56	57.7%
Access to specialized services that a small or young firm might not otherwise be able to afford	46	47.4%
Hands-on assistance to start-up or young firms with efforts to find new technologies to help improve management or production processes	44	45.4%
Support the development of informal equity investors (otherwise known as angels)	39	40.2%
Sponsorship of forums designed to link entrepreneurs with potential investors	39	40.2%
Other assistance to promote start-up enterprises	38	39.2%
Provision of space in which new or start-up firms can operate on a low-cost basis	36	37.1%
Assist with research and development, including maintenance of intellectual property	28	28.9%
Investments of equity capital (such as seed or venture financing) to new or existing firms	28	28.9%
Assess to specialized equipment that a small or young firm might not otherwise be able to afford	21	21.7%
Our program(s) do not fit into any of the previous services	10	10.3%
None of the above	10	10.3%

- Counsel on regulatory and permitting issues for new enterprises
- Training for potential business owners

Other common programs include the facilitation of peer business networks and access to specialized services that new or small enterprises might not otherwise be able to afford.

Among organizations that rated entrepreneurial development as their highest priority, management advice and training, as well as marketing assistance, were the most common services. Those organizations that rated entrepreneurial development among their lowest priorities were more likely to offer space to new start ups and provide firms with regulatory or permitting assistance as part of their on-going economic development activities.

These typical services all share one trait: they are staff, not capital, intensive. Because of budget constraints, most

organizations seem to focus on technical assistance that can be provided at a relatively low cost. Meanwhile, capital-intensive activities were rarely cited as common program offerings. Only one in five organizations offered access to specialized equipment and less than 30 percent of the organizations provided help with equity financing or assistance with research and development activities (e.g., help in protecting intellectual property).

Size matters in terms of program offerings. Not surprisingly, programs with larger entrepreneurship budgets (over \$1 million) offer a wider range of services, including facilitating peer networks, linking entrepreneurs to investors, intellectual property protection assistance, and the like. Meanwhile, small programs (with budgets under \$250,000) largely limit themselves to technical assistance in the form of permitting and regulatory guidance, business management training, and marketing assistance.

ORGANIZATIONAL CHARACTERISTICS: POTENTIAL PROGRAM OFFERINGS

Our review of existing program offerings indicated that funding constraints limited the ability of agencies to create new and innovative program offerings. Nearly one in four respondents noted that there was more that they could do to promote entrepreneurial development if they had access to greater resources. In an effort to assess areas of future program interest, we asked respondents to list other program offerings that were now on the drawing board, but remained unfunded.

These program fall into several categories including:

- ⇒ **Management training and assistance**
- ⇒ Increased training for small business owners;
- ⇒ Increased opportunities for youth-based entrepreneurial offerings;
- ⇒ Additional one-on-one help for entrepreneurs, especially those representing traditionally disadvantaged groups;
- ⇒ Added help in corporate financial and tax planning;

- ⇒ **Marketing and promotion**
- ⇒ Access to purchasing cooperatives or “pools” for entrepreneurs to access accounting, marketing, web development, travel, and health care provision;
- ⇒ Increased marketing assistance, including help with tapping export markets;
- ⇒ Increased ability to offer market studies and assessments;

- ⇒ **Access to capital and facilities**
- ⇒ Increased access to equity capital, especially venture and angel capital sources;
- ⇒ Additional specialized facilities for targeted industries such as commercial kitchen equipment for food processing firms, advanced production equipment for small manufacturers, or specialized testing equipment for R&D-oriented companies;

- ⇒ **New product ideas or opportunities**
- ⇒ Increased access to ideas that might be commercialized from university and other research sources;

- ⇒ **Entrepreneurial “Climate”**
- ⇒ Increased networking opportunities for established entrepreneurs to interact with one another;
- ⇒ Efforts to attract additional management talent to targeted communities.

This listing does not include any high-cost initiatives. With a relatively small infusion of new funds, program managers in these three states could significantly expand and improve their ability to aid entrepreneurial development.

PERFORMANCE EVALUATION

The survey's final section assessed the use of performance measures by program managers. Despite recent progress in improving public agency performance measurement, many economic development program still appear to have inadequate systems in place to track program impacts and provide effective information to elected officials and other policy makers.¹²

Our survey results confirmed this general assessment. We found that 18 percent of the economic development organizations did not evaluate their efforts while nearly one-quarter of the entrepreneurial development efforts were not measured. Furthermore, we found that many

¹² For background on performance measurement in economic development, see Timothy Bartik and Richard D. Bingham, "Can Economic Development Programs be Evaluated?" in R.D. Bingham and Robert Mier (eds.), *Dilemmas of Urban Economic Development* (Thousand Oaks, CA: Sage, 1997), pp. 246-277; Laura Reese and David Fasenfast, "Critical Perspectives on Local Development Policy Evaluations," *Economic Development Quarterly*, Vol. 13, No. 1(1999), pp. 3-7.

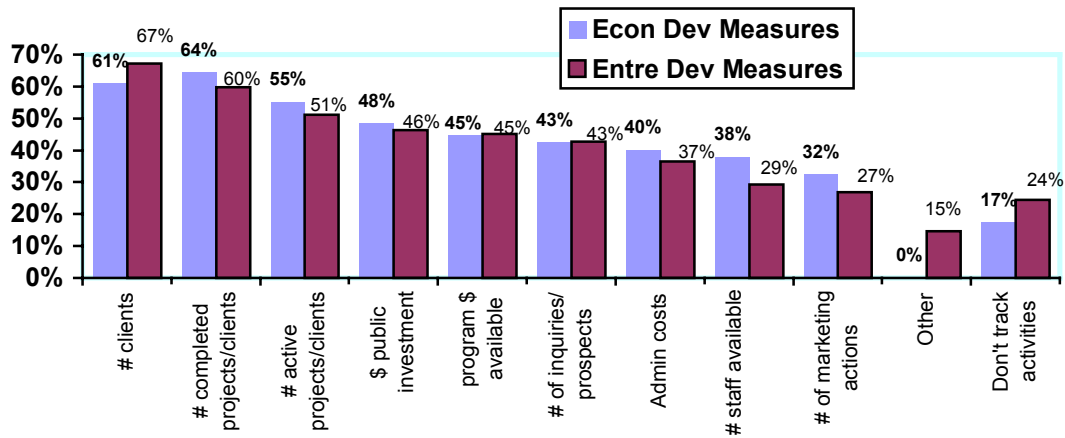
of the existing performance measures often failed to fully capture the impact of economic development investments. Job creation continues to be the primary (and often only) impact measure tracked and reported. Since entrepreneurial development activities often take years to create significant numbers of new jobs, other outcome measures should also be employed to track business starts, growth patterns, and subsequent economic activity.

Most agencies understand the importance of tracking performance. Nearly 76 percent of the respondents indicated that they gather quantifiable data from existing and past clients about the impacts of their entrepreneurial development efforts. Programs with a primary focus on entrepreneurial development are slightly more likely to gather such data---89% of these programs regularly track existing and past customers.

What to Measure:

Survey respondents were asked to identify activity and outcome measures currently used to assess both economic and entrepreneurial development programs. The most common activity measures for entrepreneurial development program are number of clients, number of completed projects, and number of active projects. More than half of the respondents reported these measures for either economic development or entrepreneurial development programs (see Figure 6). Most of the measures reported for entrepreneurial development programs were exactly the same as those reported for other economic development projects. For instance, about two-thirds of the respondents indicated measuring the number of clients for entrepreneurial development programs. The most common measure of activity for economic development was number of projects completed. Other activity measures identified for entrepreneurial development efforts include hours of counseling provided, number of events sponsored, number of event attendees, number of loans closed, the location of clients, and project milestones.

Figure 6: Activity Measures Reported

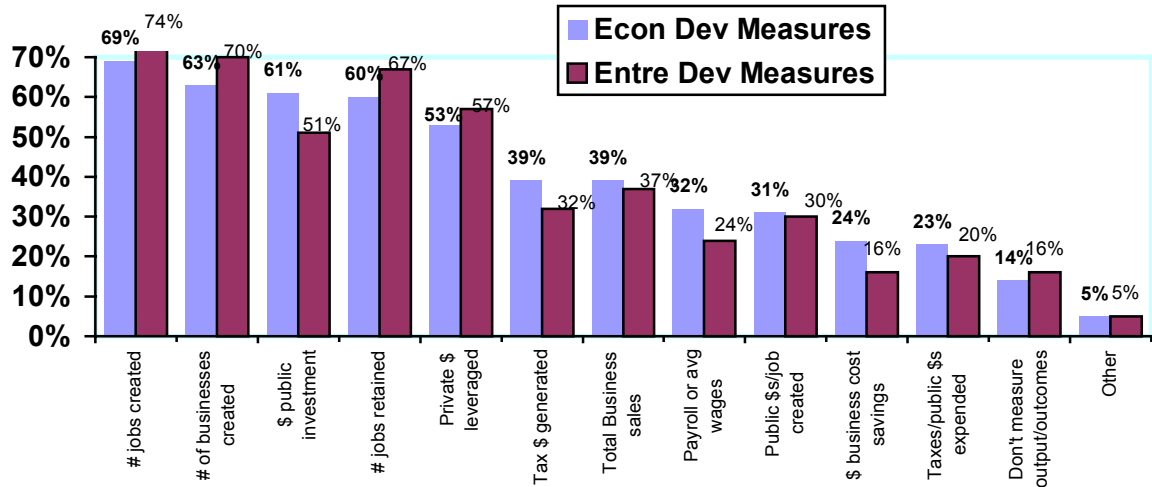


A number of organizations (24%) indicated that they do not track activities in their entrepreneurial development program. Anecdotal evidence, based on interviews with program managers, suggests that these organizations tend not to gather data due to the absence of satisfactory measures or inadequate resources to conduct data collection and performance measurement activities.

Use of activity measures can be valuable as a management tool, but these measures tell us little about whether economic development programs work. Outcome and output measures may be far more important, as they tell us whether such investments are having their intended effect, e.g. generating creation of new companies or growth of existing firms. Job creation continues to serve as the primary metric for program impact. As illustrated in Figure 7, about 69 percent

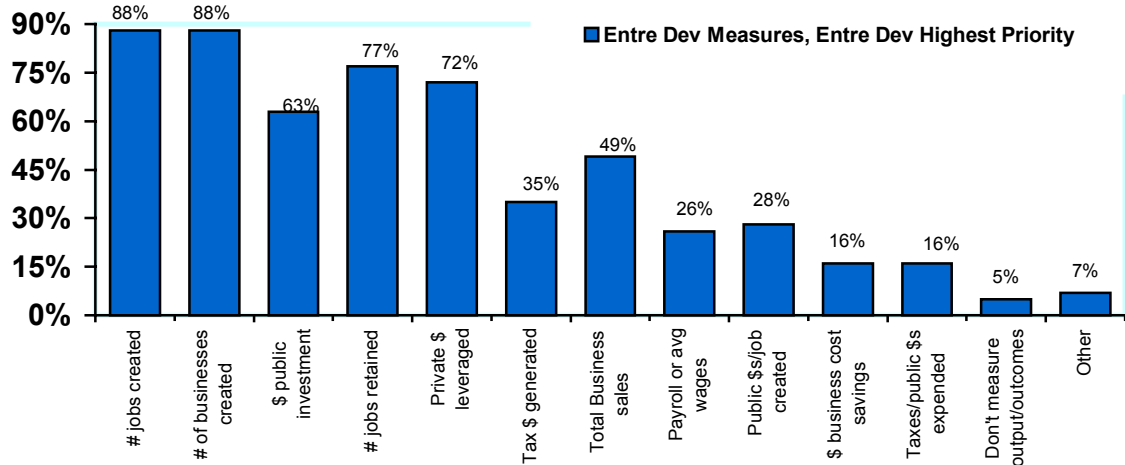
measure economic development success in this way. Entrepreneurial development program managers are even more dependent on job creation as a measure as nearly three-quarters (74 percent) of the respondents measure the success of their entrepreneurial development efforts in terms of jobs created.

Figure 7: Output/Outcome Measures Reported, All Respondents



Many of the outcome measures used to monitor the success of economic development are used for entrepreneurial development as well. A few measures – while still popular – were less likely to be used for entrepreneurial development than for economic development programs. Among these measures are dollars of public investment, tax revenues generated, average wages, and business cost savings.

Figure 8: Output/Outcome Measures Reported, Respondents Rating Entrepreneurial Development as their Highest Priority



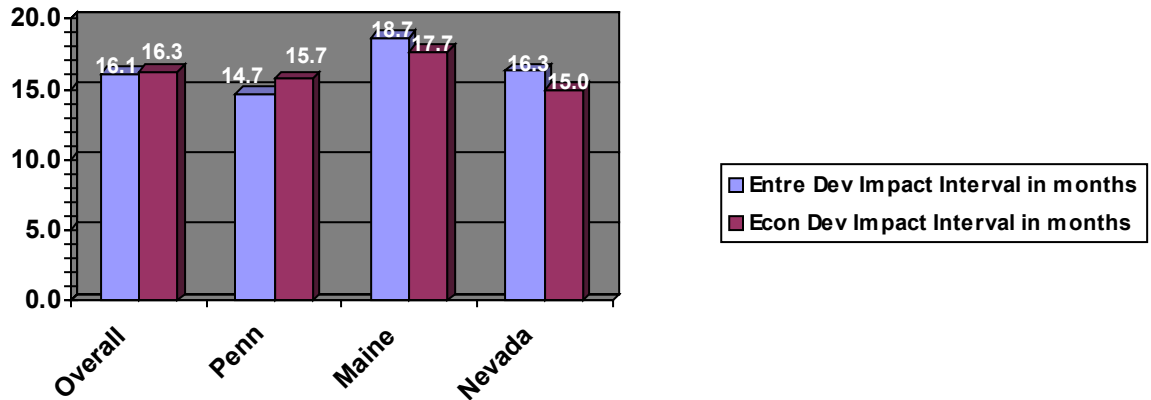
Among organizations with entrepreneurial development as their highest priority, 95 percent indicated that they monitor the impact of their programs, normally employing traditional economic development measures such as job creation. Many also measure new business starts and job retention. We found little evidence of agencies using new or innovative performance measures specifically targeted to entrepreneurial development activities. Two exceptions---the

Maine Innovation Index and the Ben Franklin Technology Partnership are highlighted in case studies of best practices in performance evaluation (See Appendix I and II).

PERFORMANCE EVALUATION: FREQUENCY OF MEASUREMENT

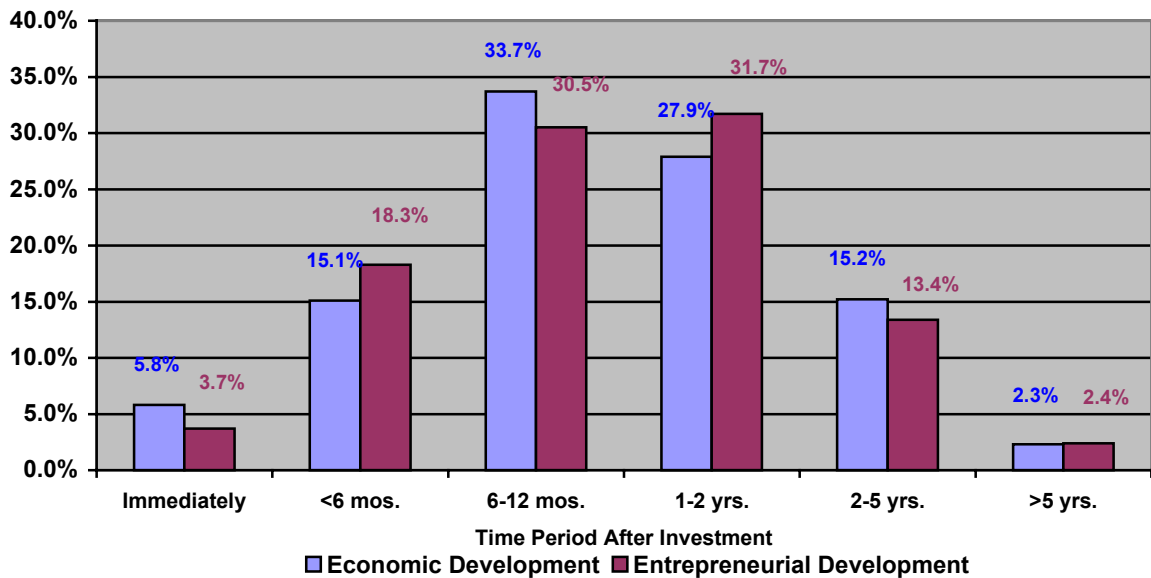
In addition to assessing the types of measures used, we also assessed the frequency of performance evaluation and expectations about program impact. On average, the respondents indicated that they expect to achieve impacts within an average of 16 months of the time of the

Figure 9: Average Expected Impact Intervals in Months by State



assistance (see Figure 9). There was very little difference in expectation between economic and entrepreneurial development programs. This finding was surprising given the understanding among policy makers that entrepreneurial development efforts may take longer to “bear fruit” in terms of job creation.

Figure 10: Interval for Measuring Impact



New firm development is a long-term process; it can take as long as five years before a new business turns a regular profit. Yet, program managers and funders indicate that they expect impacts within 16 months. Such expectations are not just unrealistic; they are potentially dangerous for both program managers and customers. For managers, they create false expectations and may thus lead to reduced funding for programs that do not generate quick results. Similarly, program customers may be inappropriately steered in directions that produce quick results but may jeopardize the business' long-term prospects. A more open and realistic dialogue about the expected results from such investments is clearly needed.

CONCLUSION: THE STATE OF ENTREPRENEURIAL DEVELOPMENT

Most entrepreneurial development programs created in the 1990s were established within new organizations that describe this mission as their primary focus. Very few of these 1990s-era programs place much emphasis on more traditional missions of business retention or attraction. In this decade, that trend appears to have waned. Stand-alone entrepreneurship programs have been replaced by a pattern of lodging new entrepreneurial development activities within larger and more traditional economic development organizations.

What explains this finding? Future research might examine the links between the 1990s economic boom and these funding trends. Perhaps tighter budgets lead program managers to retrench and view entrepreneurial development as a lower priority for funding. An alternative conclusion may be that this trend indicates a "mainstreaming" of entrepreneurial development as program managers come to view the entrepreneurship mission as a core program offering. Another conclusion may be that newer programs in the 2000s have more limited resources and thus have fewer dollars for entrepreneurial development activities.

The entrepreneurial development programs portrayed in these surveys still appear to be in something akin to adolescence. A whole host of programs and initiatives have been created, and the beginnings of "movement" around entrepreneurship can be discerned. Entrepreneurial assistance programs initiated in the 1990s are increasingly becoming an integral part of the economic development landscape. Yet, at the same time, it is clear that existing programs could benefit from further institutionalization and formalization. For example, program managers still do a poor job of tracking program performance and using these metrics to drive program designs.

None of these characterizations should come as a major surprise. Nor should they be viewed as significant criticisms. The field of entrepreneurial development is a new one, and in many cases, program managers are learning as they work with this potential new client base and trying to respond to new needs as they emerge. Economic developers are "learning by doing" in an effort to capture a new market niche. In other words, they are acting much as entrepreneurs do.

"Entrepreneurial" program managers must follow the entrepreneur's path as their programs mature. As their companies grow, entrepreneurs must hire professional managers and introduce more structured organizational processes. They find that it is no longer possible for a small team of company founders to manage (and operate) all parts of the business. Likewise, entrepreneurial development programs must eventually follow a similar path. Economic developers must understand the new sets of talents required for their field. This does not mean that economic developers must simply replace red tape and bureaucracy with flexibility and innovation. It means that entrepreneurship development programs must continue to experiment with approaches aimed at meeting customer needs while monitoring and measuring how well these experiments work.

But the effort cannot stop there. Once successful initiatives are discovered and their success is documented, program managers must ensure that these efforts are more sustainable, more

formalized, and more systematic in their operation. This maturation requires a number of changes in program design and operation:

- ⇒ Diverse Funding Base. Existing programs do enjoy a variety of funding sources, yet reliance on state government revenues remains unacceptably high, especially in an era of tight budgets. If programs are going to avoid a boom-and-bust cycle, they must attract funding from a wider range of sources, including fees for services.
- ⇒ Go Regional. Our surveys indicate that effective entrepreneurial development programs need a critical mass of resources and participants so that services can be offered at a reasonable cost. Smaller communities may not be able to create this critical mass within a single jurisdiction. Thus, regional programs should receive high priority. By serving a wider customer base, programs will also benefit by increasing the range of potential funding sources, and by creating a larger pool of potential customers.
- ⇒ Improve Performance Measurement. Program managers must do a better job of tracking performance. Moreover, new measures for entrepreneurial development need to be devised.
- ⇒ Better Data. Improved performance measurement requires that program managers have access to better and more timely data on the state of entrepreneurship in their regions. Current federal and state data collection efforts fall far short of the mark---their statistics often arrive too late and do not measure key aspects of entrepreneurial innovation. A new nationwide effort to improve federal data collection is needed.
- ⇒ Improve Professional Development. Program managers still lack venues to share best practices and better understand what their colleagues in other regions are doing. Trade associations and government agencies need to expand peer-learning opportunities for entrepreneurship program managers.

These initiatives will have a double impact. They will help existing programs function more efficiently and effectively. At the same time, they aid other states and other regions that hope to establish entrepreneurship initiatives of their own. These developments are sure to have a profound effect on the most important bottom line---increasing the rate of start-up activity in all regions of the U.S. and ensuring that these new entities can survive and thrive.

Appendix I

Maine's Approach To Measuring Economic Innovation*

Several US states and metro areas have developed progress reports and scorecards designed to benchmark how well they do relative to their competitors and comparators. In 2001, Maine initiated an innovation index designed to review the strengths and weaknesses of certain aspects of the state's economy. The second edition, *The Maine Innovation Index 2002*, refines that analysis, detailing the status of and changes in key factors influencing technology-intensive components of the state's economy. The index analyzes indicators in five categories:

- *Research & Development (R&D) Capacity*: Measures used to describe the state's R&D capacity include total R&D spending, spending on R&D in the state from federal, state, industry, laboratory, university, and college sources, as well as expenditures on research equipment.
- *Education Capacity*: Measures used to describe the state's education capacity include attainment levels for high school diplomas and baccalaureate degrees, science and engineering degrees awarded, higher education enrollment among young people, MEA Math scores for eleventh grade, MEA Science scores for eleventh grade, NAEP Math scores for eighth grade, NAEP Science scores for eighth grade, and Math gender disparity among high school students.
- *Connectivity capacity*: Measures of use of the advanced telecommunications focus on Internet usage including Internet connectivity, as well as business, household, and classroom use of the Internet.
- *Innovation capacity*: Measures of innovation focus on success in attracting capital, patents and sales, the number and value of Small Business Innovation Research/Small Business Technology Transfer (STTR) awards, venture capital investments, number of patents issued, and sales from new products.
- *Employment Capacity*: Measures of human capital focus on the number of technology-intensive workers, wages in technology-intensive industries, the availability of technology-intensive workers, and the number of Ph.D. scientists and engineers in the labor force.

Like many other research studies, the Innovation Index faces a variety of challenges, such as data collection costs, the limited availability of recent data, reference group selection, and loss of detail within composite measures. Because Maine's *Innovation Index* examines factors relating to the new high-technology industry, challenges specific to this study include how best to define technology-intensive industries, companies and employment, the limited availability of industry R&D data on a state and sub-state level, and the intensive interview requirements involved in developing a valid technology cluster analysis. For researchers and policymakers considering a similar study, related issues that should be considered include:

- A long-term commitment by stakeholders to the benchmarking effort to ensure that it is systematic and tracks change over time. In accomplishing this commitment, it is important for analysts to cultivate relationship with stakeholders aimed at building support for the process and the data gathering requirements. Maine passed legislation requiring that state-funded entities report their R&D activities annually.

* This case study was written by Yasmin Bordas of ACCRA.

- Cost is always a constraint. In developing this benchmarking analysis, the Maine Science and Technology Foundation depends on data provided by other organizations. The legislature also created a special fund using 0.8 percent of all state R&D spending to support impact and strategic planning activities of MSTF.
- Measurement is not an action, but a process. MSTF's benchmarking exercises is tied to a continuous strategic planning cycle tied to the state's vision for technology-intensive growth. The benchmarking study has become a collaborative effort with industry, universities, and other stakeholders involved in economic development. The Innovation Index provides the final outcome measures that are being tracked by legislators as they consider program and R&D spending decisions.

Appendix II

Impact Analysis of the Ben Franklin Technology Partnership

Our survey found that many entrepreneurial development programs claim to conduct regular evaluations, but the frequency of third-party evaluations is limited and the rigor of self-evaluations is commonly doubted by stakeholders and legislators alike. Several of the organizations in this survey identified outstanding procedures and tools for performing evaluations. One example, in particular, is worthy of note.

Pennsylvania created the Ben Franklin Partnership in 1982 to foster technological innovation as a strategy for spurring economic growth during a time when the state was undergoing traumatic economic change. With nearly two decades of experience, program managers have made significant investments in start-up enterprises, developed business incubators and research parks, and fostered university-based research and development.

The program is well regarded as one of the most comprehensive state-based efforts supporting technology-oriented economic development, attracting more than \$360 million in state investment during the past two decades, of which more than half was invested during the eight years between FY 1989 and 1996. Throughout the course of its history, the Ben Franklin Center had utilized a wide range of evaluation tools. By the late 1990s, the program's leaders sought to introduce a much more rigorous assessment process and pave the way for more thorough evaluation efforts for all innovation-based economic development efforts. This decision grew out of a recognition that BFTP needed to make a better public case for its investments; it also arose from a belief that the relatively long history of the Ben Franklin program had created a good track record that could be objectively assessed to measure program performance.

The expanded evaluation effort took two forms: 1) an independent, outside evaluation of the statewide impact of the Ben Franklin program, and 2) the introduction of detailed surveys and tracking of all customers served by all of the partners involved in the Ben Franklin Technology program.

In 1999, Massachusetts-based Nexus Associates conducted a statewide survey of BFTP clients. The study examined clients using their own reported results as well as secondary data from the state's Covered Employment and Wages (unemployment insurance) program. By tracking the clients over a period of time before and after receiving BFTP assistance, Nexus could make judgments about the growth of the individual companies and the role that BFTP might have played in that process. In addition, the evaluators used statistical techniques to compare assistance recipients, unfunded (or "unsuccessful") applicants, as well as a control group of companies in similar industries and a similar age as the assisted entrepreneurs. This technique allowed the evaluators to judge how much of the growth among BFTP clients was likely due to BFTP assistance and what growth might have occurred even without the BFTP intervention. This "control" group is important in helping to establish causality and allows BFTP to make more credible claims of credit for individual client successes.

In addition, Nexus conducted an econometric analysis to estimate the impacts of BFTP assistance on its clients as well as other indirect impacts that the program might have had on the economy at large, including BFTP's role in expanding the state's technology sectors, its contribution to the Gross State Product, and its effects on high-wage job creation. The evaluation also allowed BFTP to identify important intermediate outcomes that contribute to these economic goals, including the value of new sales generated by the company due to BFTP's assistance, the value-added to the local economy, and increases in profitability among the firms

assisted. To complement this analysis, Nexus conducted five in-depth case studies of BFTP client firms, tracking their history and the role of BFTP in achieving success over an eight- to ten-year period.

The Nexus Associates study created a strong case for the positive effects of the Ben Franklin program between 1989 and 1996. It found that Ben Franklin investments helped generate more than 21,800 new jobs that paid higher-than-average salaries and helped boost Pennsylvania's economy by \$2.77 billion. Overall, this rigorous assessment helped convince stakeholders throughout Pennsylvania that the Ben Franklin program was a smart investment.

Meanwhile, BFTP has used the assessment to help improve and expand its internal tracking tools and assessments. Today, the organization utilizes a detailed survey to assess customer satisfaction and program impact. Not only does the customer satisfaction survey track traditional measures such as job creation and retention as well as sales, but it also seeks to assess new products and processes that have emerged due to BFTP.