
CHAPTER 9 CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

This evaluation was designed to assess the outcomes achieved by the portfolio of projects that received investments from ARC's Entrepreneurship Initiative from 1997-2005, as well as the broader policy impacts that accrued to the region as a result of this initiative. By considering a limited set of performance measures collected for the universe of closed projects and a more detailed set of measures and insights gained from in-depth study of a sample of projects, the evaluation team was able to develop a thorough understanding of what EI investments have meant to individual projects and the region as a whole. Job and business creation have been important and significant outcomes of EI investments, as summarized in Table 9.1 below. Over 12,000 jobs have been created or retained and over 1,700 new businesses created, at a cost that suggests an efficient allocation of resources relative to other similar types of economic development programs. However, these measures tell only part of the story of impacts. EI investments have helped to train teachers and expose students to entrepreneurship concepts, almost 12,000 throughout the region. These investments have been instrumental in attracting almost \$73 million in private investment to support entrepreneurship development in the region. And, through their educational investments and the demonstration effect of the projects funded, ARC has made entrepreneurship a legitimate and desirable economic development activity in local communities and raised awareness about the importance of the entrepreneurial and small business sector to the region's economy.

Based on the results of this evaluation, the evaluation team concludes that the ARC Entrepreneurship Initiative has had an impact in the region by creating more entrepreneurs in the pipeline (through its entrepreneurship education investments), better informed entrepreneurs and better skilled entrepreneurs (through its technical assistance and training, incubator and sector investments). These investments have resulted in more job creating businesses. EI investments have also helped to create and enhance capacity to support entrepreneurship development in the region, most prominently through investments in equity capital funds that seeded and facilitated the creation of a developmental venture capital industry in the region. In addition, ARC investments have created the beginning of culture change in the region – increased recognition of the importance of entrepreneurship as an economic development strategy and increased support for those people and organizations that are committing their talents and resources to pursuing an entrepreneurial path. ARC investments have energized and empowered a new set of actors in the region, especially non-profit organizations, who continue to provide innovative, entrepreneurial leadership in the region.

Table 9.1. Summary of Quantitative and Qualitative Evaluation Findings

QUANTITATIVE OUTCOMES FOR THE UNIVERSE OF PROJECTS	
Jobs created	9,156
Jobs retained	3,022
New businesses created	1,787
Businesses served	8,242
Actual private \$ leveraged	\$72,802,868
Public cost / job created or retained	\$579 - \$3,994
Public cost / business created or expanded	\$2,988 - \$7,818
QUANTITATIVE OUTCOMES FOR THE SAMPLE PROJECTS	
Jobs created	4,332
Jobs retained	1,351
New businesses created	1,083
Businesses served	2,957
Incubator clients served	475
Students or teachers trained	11,634
Actual private \$ leveraged	\$15,856,275
QUALITATIVE OUTCOMES OF ARC EI INVESTMENTS	
Raised the profile of entrepreneurship as a development strategy and helped change the mindset within the region	
Provided start-up funding for innovative projects that would not have happened “but for” ARC investment	
Leveraged additional resources that helped some projects achieve scale and impact	
Facilitated networking and collaboration among practitioners	
Helped change people’s attitudes, particularly among youth and their teachers	

RECOMMENDATIONS

ARC’s Entrepreneurship Initiative was plowing new ground when first conceived in 1997. At that time, only a handful of states and localities were experimenting with approaches that placed entrepreneurs and their companies at the center of economic development thinking and strategy. Today, the economic development landscape is quite different. Entrepreneurship has become a mainstream component of local economic development strategies and has been making strong inroads in education at the primary, secondary, and post-secondary levels.

In the decade since EI’s inception, the field of entrepreneurship development has been created. An important body of knowledge about effective strategies and programs now exists. Yet, the field must still be defined as “emerging.” Lists of effective practices and programs have been developed,¹⁰¹ but these program ideas have not been accompanied with a rigorous approach to program design, management, and evaluation.¹⁰²

¹⁰¹ For example, see Markley, Macke and Luther (2005); Dabson, et al. (2003); OECD (2003).

¹⁰² OECD (Forthcoming).

Because it was a forerunner of today's programmatic innovations, ARC's EI experience can and should be tapped for useful ideas on how to improve the field of entrepreneurial development. With a decade of experience under its belt, ARC staff and partners can offer invaluable guidance to other federal, state, and local policy makers. For example, the Department of Labor's new WIRED (Workforce Innovation in Regional Economic Development) initiative has invested more than \$300 million in regional projects designed in part to stimulate local entrepreneurial activity. These program managers could learn a great deal from the EI experience.

In an effort to strengthen future entrepreneurial development programs, the team has developed a set of recommendations that fall into three categories:

- Recommendations for entrepreneurship development investments
- Recommendations for creating a "best in class" metrics system
- Recommendations for program design and management.

Recommendations for Entrepreneurship Development Investments

Entrepreneurship development initiatives should include assessment of existing capacity and capacity building activities as part of project design.

The evaluation of ARC's EI investments highlighted the value of capacity building – visioning, leadership development (youth and adult), asset mapping, community engagement, and strategy development. Successful entrepreneurship development initiatives build on existing capabilities, as was seen with Kentucky Highlands Investment Corporation, Appalachian Community Enterprise in Georgia, and the Shoals Entrepreneurial Center in Alabama, or create new capacity, as evidenced by the PACERS youth entrepreneurship program in Alabama and the Tech 2020 program in Tennessee. Therefore, including capacity building as an integral part of entrepreneurship investments should result in stronger, more effective initiatives.

ARC (and other federal, state or local program managers) could address this finding in several ways. At the most basic level, it could require applicants to provide an assessment of existing community capacity during the grant application process. Such an assessment would be more than a simple listing of assets. Rather, project leaders should identify their leadership team, the partner organizations, their level of resource commitment to the initiative, and how this existing capacity will be used in substantive ways to support regional entrepreneurship initiatives. They could also be required to outline a plan for enhancing resource or leadership capacity if necessary.

A second approach would create closer links between existing community capacity building programs and entrepreneurial development investments. Many of the goals pursued through ARC's community capacity investments, such

as increased organizational capacity, enhanced skills for individuals, and improved economic development outcomes,¹⁰³ are similar or identical to those pursued via an entrepreneurial development strategy. Many program interventions, such as enhanced technical assistance to business, also share similarities. Building these linkages will be eased thanks to these close connections. Indeed, ARC has already experimented with this approach under its 2005 Asset-Based Development Initiative which explicitly identified promotion of civic entrepreneurship as a primary program goal. ARC might consider more direct linkages between entrepreneurial development and other existing programs.

Finally, ARC might consider future programs that operate according to a staged process where initial investments are made in a host of community capacity building efforts. Entrepreneurship development would be considered a “second-stage” investment for communities and programs that had relatively robust local capacity in place. This staging of investments would likely produce better community outcomes. Not surprisingly, the EI experience indicates that the presence of strong local capacity has a significant effect in contributing to better economic development outcomes.

Entrepreneurship development investments should be made with a focus on the long term.

The long-term nature of entrepreneurship development requires a long-term approach to investment. If a goal of these initiatives is to transform the culture of Appalachia, or another region, then a 10-year or longer time horizon is more appropriate than the more typical one to three year grant cycle. Throughout the interviews, local program managers commented that ARC investments were too short-lived to generate sustainable local impacts. Programs could be initiated and local momentum could be generated. Yet, in most cases, ARC funds ran out at this critical point of impact, two to three years after program initiation.

This pattern creates a dilemma for program managers. Like a start-up entrepreneur, they are intensely focused on scaling up their new programs. Because entrepreneurial companies take time to generate outcomes (in terms of new products or job creation), support programs are unlikely to be able to boast of major economic development impacts during the start-up phase. They may have only a few isolated success stories after the first year or two of operations. Without these large (and quick) community impacts, program managers are then handicapped in their ability to identify other sources for program funds.

ARC should consider giving preference to multi-year funding commitments that would provide a flow of resources over a longer time horizon, assuming performance on the part of the local partner and availability of federal funding on the part of ARC. These dynamics do not imply that projects should have an

¹⁰³ For a review, see Brian Kleiner, et al., July 2004, xi.

indefinite period of funding. It is appropriate that project leaders articulate a plan for sustainability and show progress toward reaching that goal as a condition of long-term investment. But, multi-year funding commitments would provide a stable base from which these local projects could develop.

Entrepreneurship development initiatives receiving investments should be market driven and practice continuous improvement.

The needs of the customer – defined as youth, entrepreneurs or communities – must be the key drivers of entrepreneurship development. Initiatives should be designed to include mechanisms that obtain performance feedback, allow for mid-course corrections, and in some cases, redefine project goals, based on what project leaders are learning from their markets. While the field of entrepreneurship development has come a long way since the EI began in 1997, it is still in an experimentation stage. Organizations throughout Appalachia and the country are continually evolving new ways of working with entrepreneurs and communities that can inform both the design of new and the improvement of existing efforts to encourage entrepreneurship as a core economic development strategy.

ARC should consider requiring project leaders to conduct annual performance reviews. These reviews could be conducted as part of the ongoing evaluation that is recommended below. And, they should include some assessment of the project's market – for example, assessing the experience of entrepreneurs participating in a particular training or technical assistance program through focus groups or customer surveys. It is recommended that ARC participate in these reviews, providing constructive feedback and suggesting resources that local partners might use to improve program performance. ARC could use its network of regional and national partners to link a local project with a more experienced practitioner elsewhere to address a specific performance issue or concern.

Emphasis should be placed on investing in initiatives that demonstrate the ability to form regional partnerships and collaborations.

With capacity and resource limitations a reality for most organizations, the ability to form dynamic and effective partnerships that share resources becomes paramount to success. These cross-organizational and cross-regional collaborations should be emphasized in the design of entrepreneurship initiatives, and effective partnerships should be rewarded as part of the investment process. ARC should require extensive community partnerships for all of its future entrepreneurial development investments.

However, ARC must recognize that it take resources to facilitate collaboration. While local projects should be required to demonstrate true collaboration across geography (e.g., multi-county projects) and organizations (e.g., public, private and non-profit partners), ARC should consider requiring that project leaders

demonstrate budgetary commitment to cover the costs of collaboration. This resource commitment could come through allocating part of ARC funds to support collaborative activities or through the allocation of local matching dollars to this process. ARC can help further true collaboration by making it a priority in grant making and by educating local partners to the resource realities associated with collaboration.

Recommendations for Creating a “Best in Class” Metrics System

Job creation is an overused metric, paints an incomplete picture of the outcomes of entrepreneurship development investments, and should be replaced by an “entrepreneurship development metrics portfolio.”

ARC’s existing performance measurement system requires all projects to report the following relevant measures as part of its final project close-out process:

- Businesses Served
- Jobs Created
- Jobs Retained
- Project Participants
- New Businesses Created.

These metrics provide some useful insights, but most project managers and outside experts felt they were poorly suited to providing a complete picture of the EI’s impact. They were better tailored to measure the impact of more traditional economic development investments in physical infrastructure. In recognition of these shortcomings, nearly all local projects devised their own performance indicators which ranged from simple additions such as use of customer satisfaction surveys to more extensive systems that tracked the financial performance of assisted companies.

While job creation is reported as a result of ARC’s EI investments, a much richer understanding of the initiative’s impact has come through efforts to define and capture outcomes as measured by a broad set of performance metrics. These metrics include both quantitative output measures, e.g., students trained, as well as more qualitative measures, such as enhanced leadership capacity and resources leveraged through partnerships. What is clearly needed is the creation of a portfolio of metrics linked to particular types of entrepreneurship development programs. These metrics would be outcome measures that are clearly linked to the goals of particular projects. For example, to evaluate the impacts of entrepreneurship education efforts, metrics would focus on measuring the outcomes of training – whether young people are more likely to consider entrepreneurship as a career path, whether they go on to create businesses in the future, whether they return home to the region, etc.

Earlier in this report, Table 4.1 provided a portfolio of performance or outcome metrics that can be used to measure the impacts of entrepreneurship development investments across the program types that are part of ARC’s EI portfolio. These outcome measures were drawn from a review of the literature and formed a framework for this evaluation. While this framework could be used as a basis for discussion by ARC and its grantees as part of the evaluation partnership approach described below, Table 9.2 provides a more limited set of metrics that might be operationalized into a “best in class” metrics system. The proposed metrics include quantitative measures that would be collected from project leaders, who in turn would use survey and other tools to gather data from their customers. In addition, there are a number of metrics that will capture the qualitative impacts that were observed through this evaluation of the EI investments. Outcome measures to capture these qualitative changes in cultural attitudes would need to become part of the evaluation system adopted by grantees, using tools and techniques developed with support of ARC or another funding organization.

Table 9.2. Proposed “Best in Class” Outcome Measures

<p>Capital Access – Projects designed to provide access to a range of capital resources to help businesses start and grow and, in the process, become stronger competitors in local, regional, national and/or international markets.</p>	<ul style="list-style-type: none"> ▪ Number of new businesses financed (measure of business starts) ▪ Number of jobs (FTEs) created/retained (measure of business growth) ▪ Percent of funded firms still in business (measure of business performance) ▪ Average wage/job created (measure of business performance) ▪ Percent change profitability (measure of business performance)
<p>Sectors – Projects focused on improving the start up, growth, and performance of businesses in a particular sector and on growing particular sectors of the local or regional economy. Projects included networking activities designed to improve business performance.</p>	<ul style="list-style-type: none"> ▪ Amount of increased sales (\$) attributed to network or sector participation (measure of business performance) ▪ Number of jobs (FTEs) created/retained (measure of business growth) ▪ Increase in number of business starts in targeted sector (measure of business start up) ▪ Change in total sector sales over time (measure of growth in the sector)
<p>Incubators – Projects focused on creating a physical space for businesses to start up and grow, with the goal of graduating these firms into the local or regional economy.</p>	<ul style="list-style-type: none"> ▪ Number jobs (FTEs) created/retained while in the incubator (measure of business starts/growth) ▪ Number jobs (FTEs) created/retained after graduation (measure of business growth) ▪ Amount of capital (\$) raised by tenants (measure of business growth) ▪ Percent of business tenants retained in the service area (measure of local/regional economic impact)

<p>Entrepreneurship Education* – Projects focused on exposing young people to entrepreneurial concepts and experiences to enhance their understanding of entrepreneurship as a career option and to encourage youth retention through entrepreneurship.</p>	<ul style="list-style-type: none"> ▪ Increase in awareness of business concepts (measure of exposure to entrepreneurship concepts) ▪ Increase in number of participants considering business creation as a career option (measure of exposure to entrepreneurship concepts) ▪ Number of students that stay or return to the service area (measure of impact on youth retention)
<p>Technical Assistance and Training – Projects designed to build the skills of individual entrepreneurs so that they can start and grow their businesses and create stronger enterprises in the local and regional economy.</p>	<ul style="list-style-type: none"> ▪ Number jobs (FTEs) created/retained (measure of business growth) ▪ Number of clients still in business (measure of business performance) ▪ Private capital (\$) raised by clients (measure of business growth) ▪ Average wage/job created (measure of business performance) ▪ Percent change in profitability (measure of business performance)
<p>Culture Change – Projects often achieve qualitative impacts (both intended and unintended) that relate to changes in people’s attitudes toward entrepreneurship, their view of the importance of entrepreneurs to the local/regional economy, and the value placed on collaborative decision making and partnerships to create a more supportive environment for entrepreneurs.</p>	<ul style="list-style-type: none"> ▪ Public investment (\$) in entrepreneurship development activities (pre vs. post project investment) ▪ Private investment leveraged (\$) as a result of project investment in entrepreneurship development ▪ Perceived change in community/regional support for entrepreneurship development (as measure through pre and post-investment community surveys) ▪ Increased collaboration among support providers (as measured by the number of partners contributing resources to entrepreneurship development)

* The metrics developed for entrepreneurship education projects refer to potential outcomes of these projects as economic development initiatives. Therefore, metrics focus on outcomes that have potential impacts on the community and not just the individual young person. These individual potential outcomes have been measured through metrics related to changes in student performance, e.g., increased test scores, increased applications to college, improved reading, and increased leadership activities in school/community.

A “best in class” metrics system requires investment in a “best in class” evaluation system.

Performance measurement should be viewed as an integral part of program development – from the perspective of funding agencies like ARC and project leaders. One of the first steps in developing any initiative needs to be an articulation of program goals – what are you trying to achieve – followed by identification of how success or performance will be measured. These inputs form a performance measurement system that can be used by local project leaders to report on success, broaden support, and attract additional resources and partners to the effort. From ARC’s perspective, developing the evaluation

framework before investment will help to insure that individual projects contribute to the overall goals set forth by ARC and that the agency will have appropriate metrics to use to report on the performance of the overall initiative.

Ex post evaluations of major investments like ARC's EI face serious challenges in terms of the collection and integrity of data; recalling accurately the impacts of a project that ended 7-10 years ago was a challenge for most project leaders. Greater investment must be made in establishing criteria and providing funding for an ongoing evaluation of entrepreneurship development initiatives as they unfold. As noted above, local grantees regularly developed their own in-house metrics to supplement those required as part of ARC's grants process. While these in-house efforts generated a fair amount of useful data, they provided no means to aggregate data across program types, across regions, or across the entire EI spectrum.

ARC should support the creation of a performance measurement system for future investments by developing a participatory evaluation system in partnership with grantees. This measurement system would be developed by grantees and their customers, i.e., the entrepreneurs, with support from ARC, and would be designed to provide project leaders with useful information that can be used to adapt programs to changing circumstances as well as to report to ARC on project performance. The evaluation framework should be built into the program from the beginning, and project leaders would be expected to sign off on that evaluation system as part of a grant agreement. By taking this partnership approach to evaluation, ARC would be in a stronger position to hold project leaders accountable for generating the outcome metrics identified for the project, and to provide them with feedback on performance.

The evaluation team also recommends that ARC consider two sets of outcome metrics: a base set of metrics for all programs, and a tailored set of metrics for each specific type of program intervention, as laid out in Table 9.2. For example, an entrepreneurship training program and a new business incubator might both be assessed according to traditional metrics of job creation or new business starts. Beyond these base measures, incubators might be assessed according to the number of firms graduated from the facility, the incubator's annual revenue, and a range of financial metrics for businesses served by the incubator. Training programs might use a common customer satisfaction survey or other tools that assess whether participants gained new skills or knowledge, supplemented by follow-up surveys to collect financial performance metrics for business customers. Youth entrepreneurship education programs might develop metrics related to measuring the entrepreneurial skills acquired by young people who participate in these programs.

ARC has an opportunity to take the lead, among any newly authorized regional authorities and other federal agencies, in developing and standardizing assessment criteria and methods that can have an impact on how

entrepreneurship development investments are evaluated and, more broadly, how the impacts of economic development programs are measured.

Recommendations for Program Design and Management

ARC's initiative process should be regularized so that state program managers can more effectively plan for and promote use of the resources.

Interviews indicate that state program managers and local grantees like the ARC initiative process. They like the focus on specialized issues and concerns, and they like the learning opportunities provided by ARC through various sponsored conferences and reports. They are less enamored with the episodic nature of the initiative process. They would like more input into the discussions about new initiative topics, and more information on initiatives being considered in the future.

Given the gate keeping role of state leaders, ARC should provide structure and consistency to the initiatives to encourage the active buy-in of people at the state level. A more transparent and open process for community input on project design and implementation would also help ARC create more effective initiatives and empower local people and organizations to actively participate in these efforts.

As noted in Chapter 8, ARC went through an extensive process of getting input into the design of the EI. Advisory groups of state leaders and private/non-profit sector practitioners and others with experience in entrepreneurship development helped to inform the decision making behind the EI. Meetings and educational events throughout the region provided opportunities for state and local leaders to provide input to the process. In spite of these significant steps, there remains a sense that local practitioners had limited input into the design and implementation of the EI. One way to address this perception might work as follows. As ARC's leadership considers new topics for potential initiatives, it can open a process for outside input. Ideally, suggestions should be provided in multiple formats from a formal request for comment in the Federal Register to the use of blogs as a means to generate online discussion. In-person sessions, such as town hall meetings held in widely dispersed locations throughout the region, should also be considered. ARC should consider tapping into the ever growing infrastructure of entrepreneurship service providers in the region, using online surveys to get their input on what is needed in the region. The US Department of Agriculture's series of sponsored Farm Bill Forums, to discuss key sections of the 2007 Farm Bill, offers one excellent model for organizing public outreach and discussion.¹⁰⁴

¹⁰⁴ Summaries of the Farm Bill Forums, held throughout 2006, can be found at <<http://www.usda.gov/wps/portal/usdafarmbill?contentidonly=true&contentid=2006/03/0106.xml>>.

ARC's proven experience can be applied to developing and delivering effective, region-wide education programs that help make the case for entrepreneurship as a core economic development strategy for the Appalachian region.

There continues to be a strong need to make the case for entrepreneurship, particularly among local elected officials and traditional economic developers. Throughout the EI, ARC has organized educational opportunities to share information about topics such as capital access, business incubation, and entrepreneurship education. What is needed now, however, is a broader effort to provide community leaders, elected and others, with the understanding and tools they need to embrace entrepreneurship as part of an economic development strategy.

ARC has developed a reputation as a trusted authority in this field and also has the lessons learned from ten years of entrepreneurship development investments to share throughout the region. In addition, ARC's partnership approach in the beginning of the EI process can be brought to bear on this educational effort, drawing on resources and experiences of other organizations working on entrepreneurship development throughout the country.

A Next Generation Entrepreneurship Initiative

This evaluation has generated a host of new ideas and lessons learned, but one prevailing idea has emerged throughout the evaluation process – additional investments in entrepreneurship development throughout Appalachia are still in significant demand. Given the success and capacity that the ARC EI has already been building, the evidence suggests that continued ARC investment in entrepreneurship development in the region is a compellingly logical and vital next step.

To build on this momentum, ARC should create a Next Generation Entrepreneurship Innovation Initiative that will be groundbreaking in its design. A long-term investment is recommended that incorporates all the learning from the EI and the emerging entrepreneurship development field. It will include four critical elements:

- The Entrepreneurship Innovation Fund would provide selective, competitive, strategic investments in “next level” entrepreneurship development activities throughout the region. The Entrepreneurship Innovation Fund would not be tied to individual states, but would be competitively awarded across the region. Investments would be made in initiatives that demonstrate a holistic, systems approach to entrepreneurship development, with an emphasis on those initiatives that have the potential to be transformational and sustainable. It is recommended that ARC take a portfolio approach to these investments –

investing in more proven innovations as well as those that offer promise but are still early stage innovations.

- The second element would be a pool of funds distributed to the states for investments in first tier entrepreneurship projects at the ground level. Similar to the EI, these projects would build capacity and fulfill distinct entrepreneurship metrics that are developed by the communities and ARC working together.
- In the interest of capacity building, ARC should fund the development of “*Entrepreneurship Innovation – Guidelines for the Future*” – a framework for communities to use based on what ARC has learned from 10 years of investment in this field and what its partner organizations across the country have learned through their various activities.
- The fourth element would be a built-in evaluation system that is initiated from the beginning of the Entrepreneurship Innovation Initiative. It would incorporate the “best in class” metrics derived from this evaluation, discussions with ARC, and input from the field. This evaluation system will be essential to making the case as well as measuring and ensuring impact.

This capstone recommendation is based on the recognition that, while the Entrepreneurship Initiative has achieved important impacts at the community level, the region has not seen widespread or significant policy change at the state level. The entrepreneurship context assessment in Chapter 5 suggests that many parts of the region continue to lag the nation, particularly in terms of income generated by entrepreneurial activities. The Entrepreneurship Innovation Initiative would give ARC an opportunity to make investments that are deeper and more transformational, generating impacts that are influential in achieving policy change at the state, as well as local, level throughout the region. This initiative would also provide an opportunity to implement a participatory evaluation system that can generate the data and insights that will provide a deeper understanding of how ARC investments help to change the economic outlook and performance of the region.

BIBLIOGRAPHY

- Acs, Zoltan J. "The State of the Literature on Small to Medium Sized Enterprises and Entrepreneurship in Low-Income Communities." Federal Reserve Bank of Kansas City and Ewing Marion Kauffman Foundation, 2006.
- Acs, Zoltan J. and Catherine Armington. Using Census BITS to Explore, Entrepreneurship, Geography, and Economic Growth. Washington, DC: US Small Business Administration Office of Advocacy, 2005.
- Advanced Research Technologies. The Innovation-Entrepreneurship Nexus. Washington, DC: US Small Business Administration Office of Advocacy, 2005.
- Aernoudt, Rudy. "Incubators: Tool for Entrepreneurship?" Small Business Economics. Vol. 23, No. 2, September 2004. 127-135.
- Alliance for Regional Stewardship. Regional Indicators: Telling Stories, Measuring Trends, Inspiring Actions. ARS Monograph Series No. 10. November 2005.
- Appalachian Regional Commission. Appalachian Youth Entrepreneurship Springboard Award: 2002 and 2003 Winners. Washington, DC: Appalachian Regional Commission, 2004.
- Appalachian Regional Commission. Capitalizing on Rural Communities. Washington, DC: Appalachian Regional Commission, 2000.
- Appalachian Regional Commission. Entrepreneurship Initiative: Program Summary and Approved Projects. Washington, DC: Appalachian Regional Commission, 2003.
- Atkinson, Robert D. The Past and Future of America's Economy. Northampton, MA: Edward Elgar, 2004.
- Atrostic, B.K. "Measuring U.S. Innovative Activity." US Census Bureau Center for Economic Studies Working Paper (07-11). March 2007.
- Association of University Technology Managers. AUTM U.S. Licensing Survey, FY 2004: A Survey Summary of Technology Licensing (and Related) Performance for U.S. Academic and Nonprofit Institutions, and Technology Investment Firms. Washington, DC: AUTM, 2004.
- Audretsch, David, et al. "The Knowledge Filter and Economic Growth: The Role of Scientist Entrepreneurship." Ewing Marion Kauffman Foundation, 2006.

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- Barkley, David L. et al. Establishing Nontraditional Venture Capital Institutions: Lessons Learned. Rural Equity Capital Initiative Study of Nontraditional Venture Capital Institutions. Columbia, MO: Rural Policy Research Institute, 2001.
- Barkley, David L. and Deborah Markley. The Development of an Entrepreneurial Support Organization: The Case of the Kentucky Highlands Investment Corporation. RUPRI Center for Rural Entrepreneurship Research Case Study Series Number 1. March 2003.
- Bartik, Timothy J. Evaluating the Impacts of Economic Development Programs on Local Economic Outcomes: What Has Been Done and What is Doable? Upjohn Institute Staff Working Paper (No. 03-89). Kalamazoo, MI: Upjohn Institute, 2002.
- Bartik, Timothy J. and Richard D. Bingham. "Can Economic Development Programs be Evaluated?" Dilemmas of Urban Economic Development. Eds. R.D. Bingham and Robert Mier. Thousand Oaks, CA: Sage, 1997. 246-277.
- Block, Z. and S. A. Stumpf. "Entrepreneurship Education Research: Experience and Challenge." The State of the Art of Entrepreneurship. Eds. D. L. Sexton and J. D. Kasarda. Boston, MA: PWS-Kent Publishing, 1992. 17-45.
- Bollingtoft, Anne and John P. Ulhoi. "The Networked Business Incubator – Leveraging Entrepreneurial Agency?" Journal of Business Venturing Vol. 20, 2005: 265-290.
- Brandow Company and Economic Development Research Group. Evaluation of the Appalachian Regional Commission's Infrastructure and Public Works Program Projects, Final Report to the Appalachian Regional Commission. Washington, DC: Appalachian Regional Commission, 2000.
- Brown, J. David, John S. Earle, and Dana Lup. "What Makes Small Firms Grow? Finance, Human Capital, Technical Assistance, and the Business Environment in Romania." Economic Development and Cultural Change Vol. 54, No. 1, 2005: 33-70.
- Burchell, Robert W. EDA RLFs: Performance Evaluation. Washington, DC: U.S. Economic Development Administration, 2002.
- Burchell, Robert W. EDA Defense Adjustment Program: Performance Evaluation. Washington, DC: U.S. Economic Development Administration, 1997.

-
- Burchell, Robert W. EDA Public Works Program: Performance Evaluation. Washington, DC: U.S. Economic Development Administration, 1997.
- Carter, Sara, et al. "Beyond Portfolio Entrepreneurship: Multiple Income Sources in Small Firms." Entrepreneurship and Regional Development Vol. 16, 2004: 481-499.
- Charney, Alberta and Gary Libecap. The Impact of Entrepreneurship Education: An Evaluation of the Berger Entrepreneurship Program at the University of Arizona, 1985-1999. Kauffman Center for Entrepreneurial Leadership, 2000.
- Chukumba, Celestine and Richard Jensen. Invention, Entrepreneurship, and Start-Ups. National Bureau of Economic Research Working Paper (#11475). July 2005.
- Coalition of Community Development Financial Institutions. Providing Capital Building Communities Creating Impact. Washington, DC: CDFI Coalition, 2004.
- Coastal Enterprises, Inc. Measuring Impact in Practice. Wiscasset, ME: Coastal Enterprises Inc., February 2006.
- Colgan, Charles S. and Bruce Andrews. Evaluation of Maine Technology Institute Programs. University of Southern Maine Center for Business and Economic Research. December 2004.
- Collender, Ray et al. "Financial Markets Serve Rural Areas Fairly Well." Rural Development Perspectives Vol. 14, No. 1, May 1999: 28-35.
- Community Development Venture Capital Association. Measuring Impacts Toolkit. New York: Community Development Venture Capital Alliance, 2005.
- Cooke, Phil. Regional Innovation Systems as Public Goods." Working Paper. United Nations Industrial Development Organization, 2005.
- Council on Competitiveness. Measuring Regional Innovation. Washington, DC: Council on Competitiveness, 2006.
- Council on Competitiveness. Innovate America. Washington, DC: Council on Competitiveness, December 2004
- Czohara, Laura and Julia Melkers. Performance Measurement in State Economic Development Agencies: Lessons and Next Steps for GDITT. Georgia State University Fiscal Research Center Report No. 92. February 2004.

-
- Dabson, Brian, et al. Mapping Rural Entrepreneurship. Washington, D.C.: CFED, August 2003.
- Drabenstott, Mark. A Review of the Federal Role in Regional Economic Development. Working Paper. Center for the Study of Rural America, Federal Reserve Bank of Kansas City, May 2005.
- Eberts, Randall W., George A. Erickcek, and Jack Kleinhenz. "Development of Regional Economic Dashboard." Employment Research July 2006: 3-5.
- Edgcomb, Elaine L. and Joyce A. Klein. Opening Doors, Building Ownership: Fulfilling the Promise of Microenterprise in the United States. Washington, D.C.: FIELD, A Program of the Aspen Institute, 2005.
- Eisinger, Peter K. The Rise of the Entrepreneurial State: State and Local Economic Development Policy in the United States. Madison, WI: University of Wisconsin Press, 1988.
- Elfring, Tom and Willem Hulsink. "Networks in Entrepreneurship: The Case of High-technology Firms." Small Business Economics Vol. 21, No. 4, 2003: 409-422.
- Emery, Mary and Cornelia Flora. "Spiraling Up: Mapping Community Transformation with Community Capitals Framework." Journal of the Community Development Society Vol. 37, No. 1, Spring 2006: 19-35.
- Enterprise Corporation for the Delta. Enterprise Corporation for the Delta Program Monitoring Report – Business Technical Assistance 2003. Jackson, MS: Enterprise Corporation for the Delta, 2003.
- European Commission, Directorate General, Enterprise and Industry. The PAXIS Manual for Innovation Policy Makers and Practitioners. Brussels: European Commission, 2006.
- Fairlie, Robert W. Kauffman Index of Entrepreneurial Activity, State Report 2005. Kansas City: Ewing Marion Kauffman Foundation, 2006.
- Fayolle, Alain. "Evaluation of Entrepreneurship Education: Behavior Performing or Intention Increasing?" International Journal of Entrepreneurship and Small Business Vol. 2, No.1, 2005: 89-98.
- Feldman, Maryann. "The Entrepreneurial Event Revisited: Firm Formation in a Regional Context." Industrial and Corporate Change Vol. 10, No. 4, 2001: 861-891.

-
- Felsenstein, Daniel and Aliza Fleischer. "Small-Scale Entrepreneurship and Access to Capital in Peripheral Locations: An Empirical Analysis." Growth and Change Vol. 33, 2002: 196-215.
- Fisher, Peter. "The Fiscal Consequences of Competition for Capital." Reining in the Competition for Capital. Ed. Ann Markusen. Kalamazoo, MI: WE Upjohn Institute, 2007.
- Foster, Lucia. Reallocation and Productivity Dynamics in the Appalachian Region. US Census Bureau Center for Economic Studies Working Paper (06-03). January 2006.
- Giannetti, Mariassunta and Andrei Simonov. On the Determinants of Entrepreneurial Activity: Individual Characteristics, Economic Environment, and Social Norms. White Paper. Stockholm School of Economics, June 2004.
- Gilbert, Brett Anitra, David B. Audretsch, and Patricia P. McDougall. "The Emergence of Entrepreneurship Policy." Small Business Economics Vol. 22, 2004: 313-323.
- Gillett, Sharon E., et al. Measuring the Economic Impact of Broadband Deployment, Final Report to the Economic Development Administration. Washington, DC: Economic Development Administration, February 2006.
- Glasmeier, Amy K. Cost per Job Associated with EDA Investments in Urban and Rural Areas. Washington, DC: U.S. Economic Development Administration, 2002.
- Goetz, Stephan J. and David Freshwater. "State-Level Determinants of Entrepreneurship and a Preliminary Measure of Entrepreneurial Culture." Economic Development Quarterly Vol. 15, No. 1, February 2001: 58-70.
- Greenburg, Elizabeth and Richard Reeder. Who Benefits from Business Assistance Programs? Results of the ERS Rural Manufacturing Survey. United States Department of Agriculture Information Bulletin Number 736-04. 1998.
- Greene, F.J. and D.J. Storey. "An Assessment of a Venture Capital Creation Programme: the Case of Shell LiveWIRE." Entrepreneurship and Regional Development Vol. 16, No. 2, March 2004: 145-159.
- Greenwood Consulting Group. A Survey of Business Incubators in Appalachia. Washington, DC: Appalachian Regional Commission, July 2005.

-
- Grimaldi, Rosa and Alessandro Grandi. "Business Incubators and New Venture Creation: An Assessment of Incubating Models." Technovation Vol. 25, 2005: 111-121.
- Heard, Robert and John Sibert. Growing New Businesses with Seed and Venture Capital: State Experiences and Options. Washington, DC: National Governors Association, 2000.
- Ho-Kim, Thu-Mai and Ernesto Venegas. Starting Up Economic Engines: Key Factors for Growing Successful Start-Ups. Minnesota Department of Employment and Economic Development Issue Brief. October 2003.
- Huggins, R. "The Success and Failure of Policy-Implanted Inter-firm Network Initiatives: Motivations, Processes and Structure." Entrepreneurship and Regional Development Vol. 12, 2000: 111-135.
- Innovation Associates Inc. Accelerating Economic Development Through University Technology Transfer. February 2005.
- Institute for Competitiveness and Prosperity, Measuring Ontario's Prosperity: Developing an Economic Indicator System. Working Paper No. 2. Ontario, Canada: Institute for Competitiveness and Prosperity, 2002.
- Junior Achievement. The Impact on Students of Participation in Junior Achievement: Selected Cumulative and Longitudinal Findings. Monograph. January 26, 2004.
- Katz, Jerome. And Another Thing. . . 2006 Coleman Foundation White Paper on Entrepreneurship Education. 2006 Annual Meeting of US Association of Small Business and Entrepreneurship, January 13, 2006.
- Katz, Jerome A. "The Chronology and Intellectual Trajectory of American Entrepreneurship Education, 1876-1999." Journal of Business Venturing Vol. 18, 2003: 283-300.
- Kingsley, Gordon and Edward J. Malecki. "Networking for Competitiveness." Small Business Economics Vol. 23, 2004: 71-84.
- Kleiner, Brian, et al. Evaluation of The Appalachian Regional Commission's Community Capacity-Building Projects. Washington, D.C.: Appalachian Regional Commission, July 2004.
- Kourilsky, Marilyn, and William B. Walstad. The E Generation. Dubuque, IA: Kendall-Hunt, 2000.

-
- Lambrecht, Johan and Fabrice Pirnay. "An Evaluation of Public Support Measures for Private External Consultancies to SMEs in the Walloon Region of Belgium." Entrepreneurship and Regional Development Vol. 17, 2005: 89-108.
- Lee, Lena. Entrepreneurship Education: A Compendium of Related Issues. Working Paper. National University of Singapore Entrepreneurship Centre, 2005.
- Lichtenstein, Gregg A. and Thomas S. Lyons. "The Entrepreneurial Development System: Transforming Business Talent and Community Economies." Economic Development Quarterly Vol. 15, No. 1, 2001: 3-20.
- Lichtenstein, Gregg A. and Thomas S. Lyons, Incubating New Enterprises: A Guide to Successful Practice. Washington, DC: Aspen Institute, 1996.
- Low, Sarah. "Regional Asset Indicators: Entrepreneurship Breadth and Depth." The Main Street Economist September 2004:1-4.
- Low, Sarah, Jason Henderson, and Stephan Weiler. "Gauging a Region's Entrepreneurial Potential." Economic Review Third Quarter, 2005.
- Edward Lowe Foundation, et al. Michigan: Toward an Entrepreneurial Economy, 2005-2006. Cassopolis, MI; Edward Lowe Foundation, 2006.
- Malecki, Edward J. "Geographical Environments for Entrepreneurship." International Journal of Entrepreneurship and Small Business Forthcoming 2008.
- Manigart, Sophie, et al. "Determinants of Required Return in Venture Capital Investments: A Five Country Study." Journal of Business Venturing Vol. 16, No. 6, July 2002: 291-312.
- Maunula, Mari. The Perceived Value-Added of Venture Capital Investors. Discussion Paper No. 1030. The Research Institute of the Finnish Economy, March 2006.
- Markley, Deborah, et al. Rural Equity Capital Initiative Study of Nontraditional Venture Capital Institutions. Working Paper PB2001-11A-D. Rural Policy Research Institute, 2001.
- Markley, Deborah and Karen Dabson. Innovative Approaches to Entrepreneurial Development: Cases from the Northwest Region. RUPRI Center for Rural Entrepreneurship, 2006. 32-41.

-
- Markley, Deborah, Don Macke and Vicki Luther. Energizing Entrepreneurs: Charting a Course for Rural Communities. Lincoln, NE: Heartland Center for Leadership Development, 2005.
- Markman, Gideon, et al. "Entrepreneurship and University-based Technology Transfer." Journal of Business Venturing Vol. 20, No. 2, 2005: 241-263.
- McKernan, Signe-Mary and Henry Chen. Small Business and Microenterprise as an Opportunity and Asset-Building Strategy. Urban Institute Issue Brief No. 3. June 2005.
- McMullan, W. E. and W.A. Long. "Entrepreneurship Education in the Nineties." Journal of Business Venturing Vol. 18, No. 2, 1987: 261-275.
- Microenterprise Fund for Innovation, Effectiveness, Learning and Dissemination. Improving Microenterprise Training and Technical Assistance: Findings for Program Managers. Washington, DC: Aspen Institute, 2002.
- Microenterprise Fund for Innovation, Effectiveness, Learning and Dissemination. Assessing the Effectiveness of Training and Technical Assistance. Field Forum Issue 1. Washington, DC: Aspen Institute, 1999.
- Minniti, Maria, with William Bygrave and Erkkö Autio. Global Entrepreneurship Monitor 2005 Executive Report. London: London Business School, 2005.
- Molnar, Lawrence, et al. Impact of Incubator Investments. Athens, OH: National Business Incubation Association, 1997.
- Mountain Association for Community Economic Development. Accounting for Impact: Economic Development Spending in Kentucky. Berea, KY: Mountain Association for Community Economic Development, 2005.
- Nakkula, Michael. Expanded Explorations into the Psychology of Entrepreneurship: Findings from the 2001-2002 Study of NFTE in two Boston Public High Schools. Working Paper. Harvard University Graduate School of Education, 2003.
- National Association of Development Organizations Research Foundation. Business Not as Usual: Regional Development Organizations Promote Rural Entrepreneurship. Washington, DC: NADO, 2002.
- The National Association of Seed and Venture Funds. Seed and Venture Capital: State Experiences and Options. NASVF White Paper. May 2006.

-
- National Commission on Entrepreneurship. American Formula For Growth. Washington, D.C.: National Commission on Entrepreneurship, October 2002.
- National Community Reinvestment Coalition. Access to Capital and Credit for Small Businesses in Appalachia. Washington, DC: National Community Reinvestment Coalition, 2007.
- National Governors Association. A Governor's Guide to Strengthening State Entrepreneurship Policy. Washington, DC: National Governors Association, 2004.
- Nexus Associates. A Continuing Record of Achievement: The Economic Impact of the Ben Franklin Technology Partners, Final Report. March 2003.
- North Carolina Rural Economic Development Center. Hello, My Business Name is ...: A Guide to Building Entrepreneurial Networks in North Carolina. Raleigh, NC: North Carolina Rural Economic Development Center, 2007.
- Oklahoma Center for the Advancement of Science and Technology, Impact Report 2006. Oklahoma City, Oklahoma: OCAST, January 2006.
- Oldsman, Eric. Evaluation as an Effective Management Tool. Nexus Associates Inc., 2003.
- Oldsman, Eric. "Do Manufacturing Extension Programs Matter?" Research Policy Vol. 25, No. 2, March 1996: 215-232.
- Organization for Economic Cooperation and Development. OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes. Paris: Organization for Economic Cooperation and Development, Forthcoming.
- Organization for Economic Cooperation and Development. Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data Third Edition. Paris: Organization for Economic Cooperation and Development, 2005.
- Organization for Economic Cooperation and Development. Entrepreneurship and Local Economic Development. Paris: Organization for Economic Cooperation and Development, 2003.
- Pages, Erik R., Doris Freedman, and Patrick Von Bargen. "Entrepreneurship as a State and Local Economic Development Strategy." The Emergence of Entrepreneurship Policy: Governance, Start-Ups and Growth in the U.S. Knowledge Economy. Ed. David Hart. Cambridge, MA: Cambridge University Press, 2003.

-
- Pages, Erik R. and Shari Garmise. "The Power of Entrepreneurial Networks." The Economic Development Journal Vol. 2, No. 3, Summer 2003: 20-30.
- Pages, Erik R. and Kenneth A. Poole. "Entrepreneurship Promotion as an Economic Development Strategy: Next Steps in Institutionalizing the Field." Applied Research in Economic Development Vol. 3, No. 2, December 2006: 10-27.
- Phan, Phillip and Siegel, Donald. The Effectiveness of University Technology Transfer: Lessons Learned from Quantitative and Qualitative Research in the U.S. and the U.K. Rensselaer Working Papers in Economics. April 2006.
- Pittaway, Luke, Maxine Robertson, Kamal Munir, and David Denyer. Networking and Innovation: A Systematic Review of the Evidence. University of Lancaster Institute for Entrepreneurship and Enterprise Development Working Paper 016. 2004.
- Reamer, Andrew, Larry Icerman, and Jan Youtie. Technology Transfer and Commercialization: Their Role in Economic Development. Washington, D.C.: US Economic Development Administration, August 2003.
- Reese, Laura and David Fasenfast. "Critical Perspectives on Local Development Policy Evaluations." Economic Development Quarterly Vol. 13, No. 1, 1999: 3-7.
- Regional Technology Strategies, Inc. Evaluation of the Early Stages of the Appalachian Regional Commission's Entrepreneurship Initiative. Washington, D.C.: Appalachian Regional Commission, December 2001.
- Reynolds, Paul, D.J. Storey, and P. Westhead. "Crossnational Comparisons of the Variation in New Firm Formation Rates." Regional Studies Vol. 28, No. 4, 1994: 443-456.
- Rice, Mark P. "Co-production of Business Assistance in Business Incubators: An Exploratory Study." Journal of Business Venturing Vol. 17, No. 2, 2002: 163-187.
- Robinson, Dennis and Zuoming Liu. A User Guide to the Socio-Economic Benefits Assessment System: A Rural Business-Cooperative Services Assessment Tool for Economic Development. Community Policy Analysis Center, University of Missouri-Columbia, December 2004.
- Romanelli, Elaine and C.B. Schoonhoven, eds. The Entrepreneurship Dynamic. Stanford, CA: Stanford University Press, 2001.

-
- Rosenfeld, Stuart A. "Networks and Clusters: The Yin and Yang of Rural Development." Proceedings of Federal Reserve Bank of Kansas City Conference on Exploring Policy Options for a New Rural America. September 2001: 103-120.
- Sandler, David. The Effective Use of Tax Credits in State Venture Capital Programs. Ottawa: Canadian Tax Foundation, 2004.
- Schlough, Charles and Streeter, Deborah. Cornell University's Entrepreneurship Education and Outreach Program: An Evaluation and Proposal. Department of Agricultural, Resource, and Managerial Economics Working Paper. Cornell University, 1999.
- Shane, Scott. Academic Entrepreneurship: University Spin-offs and Wealth Creation. Cheltenham: Edward Elgar, 2004.
- Shapira, Philip. The Evaluation of USNet: Overview of Methods, Results and Implications Final Report submitted to USNet Partners. August 1998.
- Shapira, Philip. The Evaluation of USNet: Overview of Methods, Results and Implications – Final Report. Georgia Tech Policy Project on Industrial Modernization Working Paper 9805. 1998.
- Simpkins, Amy. "Community Development Venture Capital: Producing Results for Entrepreneurs, Investors, and Communities." Bridges Vol. 10, November 2006.
- Smits, Ruud and Stefan Kuhlmann. "The Rise of Systemic Instruments in Innovation Policy." International Journal of Foresight and Innovation Policy. Vol. 1, Nos. 1/ 2, 2004.
- Solomon, George G., S. Duffy and A. Tarabishy. "The State of Entrepreneurship Education in the United States: A Nationwide Survey and Analysis." International Journal of Entrepreneurship Education Vol. 1, No. 1, 2002: 65-86.
- Storey, David J. Six Steps to Heaven: Evaluating the Impact of Public Policies to Support Small Businesses in Developed Economies. Warwick Business School Small and Medium Sized Enterprise Centre Working Paper No. 59. University of Warwick, September 1998.
- Street, Christopher T. and Ann-Frances Cameron. "External Relationships and Small Business: A Review of Small Business Alliance and Network Research." Journal of Small Business Management Vol. 45, No. 2, 2007: 239-266.

-
- Taylor, Jill S. What Makes a Region Entrepreneurial? A Review of the Literature. Cleveland State University Center for Economic Development Monograph. September 2006.
- Tornatzky, Louis G. et al. Incubating Technology Businesses: A National Benchmarking Study. Athens, Ohio: National Business Incubation Association, 2003.
- Tornatzky, Louis G. et al. Innovation U.: New University Roles in a Knowledge Economy. Durham, NC: Southern Growth Policies Board, 2002.
- United Kingdom Department of Trade and Industry. Innovation in the UK: Indicators and Insights. DTI Occasional Paper No. 6. July 2006.
- U.S. Small Business Administration Office of Advocacy and the Ewing Marion Kauffman Foundation. Entrepreneurship in the 21st Century. Conference Proceedings. March 26, 2004.
- Vesper, Karl and William Gartner. "Measuring Progress in Entrepreneurship Education." Journal of Business Venturing Vol. 12, No. 5, May 1997: 403-421.
- Welch, Doug, et al. Net Benefits: An Assessment of a Set of Manufacturing Business Networks and their Impacts on Member Companies. Report Prepared for USNet and Regional Technology Strategies, Inc. 1997.
- Westat. Evaluation of The Appalachian Regional Commission's Community Capacity-Building Projects. Washington, D.C.: Appalachian Regional Commission, July 2004.
- White, Jesse. "Overview Panel Comments." Proceedings of Federal Reserve Bank of Kansas City Conference on Beyond Agriculture: New Policies for Rural America. April 2000.
- Witt, Peter. "Entrepreneurs' Networks and the Success of Start-Ups." Entrepreneurship and Regional Development Vol. 16, 2004: 391-412.
- Zider, B. "How Venture Capital Works." Harvard Business Review Vol. 76, No. 6, 1998: 131-139.