

RESEARCH REPORT

Spring 2004 Volume 15, Issue 8

Published by the Illinois Institute for Rural Affairs

Stipes Hall 518 Western Illinois University 1 University Circle Macomb, IL 61455-1390 309/298-2237

www.IIRA.org

Entrepreneurial Education: Creating a Usable Economic Community Base

by Lori E. Williams1

If small businesses are the engines of our economy, then entrepreneurs are the sparks that ignite those engines. Research conducted by Kourilsky (1995) for the Center for Entrepreneurial Leadership of the Ewing Kauffman Foundation in 1994 reported that seven of ten high school students want to start a business. This study also reported that 90 percent of students surveyed rated their personal knowledge of entrepreneurship as very poor to fair. Other findings of the research suggested 85 percent reported being taught only "a little about" or "practically nothing about" how a business operates; and 77 percent believed that they are taught only "a little about" or "practically nothing about" how the economy works. For example, only 27 percent reported taking a course in business or entrepreneurship in high school. According to the National Council on Economic Education (2003), Illinois is one of only four states that currently require students to take a personal finance course before graduating. The Kourilsky (1995) study of youth clearly illustrates a demand for more educational opportunities for preparing students for engaging in a self-directed economic future.

This research report will explain how entrepreneurship education programs can help students create and establish their own business. The paper will define entrepreneurship education, outline the major components of entrepreneurship programs, and highlight exemplary programs across the country. The dual purpose of this paper is to provide information to those interested in developing an entrepreneurship program and to suggest additional resources that provide information and technical assistance for development of an entrepreneurship program.

Current educational offerings are not necessarily aligned with the large number of students interested in learning how to create their own jobs in the future (Kourilsky 1995). As reported in the Kourilsky study of American youth, high school students want to learn about entrepreneurship. Kourilsky found that 84 percent of the students polled reported as "important to very important" that the nation's schools teach more about entrepreneurship and starting a business (4-6). Students appear to recognize they must find a way to create their own employment.

Many rural youth will not attend college to learn a profession or skill that is in demand locally. Thus, an opportunity exists for such students to prepare for employment through rural entrepreneurship education. The challenge is to find ways in which rural economic development professionals, community colleges and universities, and businesses can foster young entrepreneurs in order to create jobs and expand rural local economies.

Including entrepreneurship principles with vocational training can help rural communities address unmet business needs and create high-paying jobs that will retain youth after graduation. Effective initiatives in entrepreneurship education are crucial for developing individuals with the passion and the multiple skills needed not only to create an inherently risky entrepreneurial enterprise, but also to guide the enterprise successfully through the initial growth phase. Fortunately, educational programs in various parts of the country exist that provide insights on how to initiate a successful entrepreneurship curriculum.

¹ Lori Williams, former Executive Director of the Governor's Rural Affairs Council, worked to expand business opportunities within rural communities. While under contract as a research associate for the IIRA at WIU, Ms. Williams has researched entrepreneurship programs to increase small business startups for rural communities.

What Is Entrepreneurship Education?

Many community colleges and universities have business management courses and programs to meet the needs of students interested in managing businesses; however, entrepreneurship education takes a somewhat different, but complementary, educational approach. While business education focuses on managing a business, entrepreneurship education focuses on skills needed to organize and start new business ventures (Brown 2000). Central components of an entrepreneurship curriculum prepare students to . . .

- identify or recognize a market opportunity and generate a business plan (service or product) to address the opportunity.
- obtain and commit resources in the face of risk to pursue the opportunity.
- create and sustain a business organization to serve the market opportunity. (Sahlman and Stevenson 1992)

Recognizing an opportunity may be the most important part of entrepreneurship. Envisioning an unmet need within the marketplace and creating a service or product to meet that need at an acceptable price is central to entrepreneurship. To succeed, an entrepreneur must be able to identify good market opportunities and possess the skills and passion to pursue those opportunities in the presence of risk.

Marshalling the resources to invest in product development, marketing, and distribution is risky for new entrepreneurs. Obtaining resources requires the ability to market an idea to potential investors. To succeed, the entrepreneur must have both conceptualization skills and marketing abilities.

Building an organization requires the business skills to produce, market, and distribute a service or product. Individuals starting a new business are pulled simultaneously in many directions. These individuals must allocate time to human resource development, finance management, marketing strategies, and manufacturing practices, seemingly at the same time.

Traditional business classes focusing on business finance, accounting, and management principals often assign students as a group to work on a business idea. This team approach for exploring a business idea fails to emphasize the multiple responsibilities needed in starting a business. Business management courses frequently do not allow students to identify an unmet need, commit the necessary resources to invest in the business idea, and build an

organization to deliver the product or service. Traditional business classes ask students to manage an existing business opportunity as opposed to creating their own individual business opportunity.

Entrepreneurship education tries to provide the knowledge and hands-on learning experiences to help students develop the skills associated with starting a business venture. Those skills include visioning, leading, communicating, listening, problem solving, managing change, networking, negotiating, and team building (Sahlman and Stevenson 1992).

The challenge for educational institutions is to develop a curriculum within the existing system that provides a decentralized, individualized, and empowering environment in which students can learn or develop the skills needed for entrepreneurship. In both K-12 and higher education, creating a supportive environment where entrepreneurs can learn, take risks, and sometimes fail is an important aspect of entrepreneurship education. According to Kourilsky (1995), high schools and community colleges with a successfully integrated entrepreneurship program . . .

- create and reinforce a strong sense of individual ownership, activities, and outcomes.
- reinforce associated feelings of freedom and personal ability to make things happen.
- maximize the opportunity for individuals to take responsibility for a wide and integrated range of tasks.
- reinforce the notion of responsibility to see things through.
- strongly focus the organization on defining excellence through the eyes of its key stakeholders.
- encourage staff to develop stakeholder networks in line with strategy.
- link rewards to satisfying stakeholder needs and thus school excellence.
- tolerate ambiguity and allow mistakes as a basis for learning.
- encourage strategic thinking before formal planning.

Entrepreneurship education requires students to vision, create, market, and sell their entrepreneurial ventures. To a significant extent, this means a trial and error process with continual guidance in decisions. In some instances, failure

may be the most effective learning process, a concept at odds with the more usual expectation of success promoted in most educational programs (Kourilsky 1995, 14).

Successful Models

Models of successful entrepreneurship education programs range from K-14 to higher education to adult education programs. Some programs try to reach students at a very early age to help them build entrepreneurial skills. Other approaches teach community college and university students about entrepreneurship while they learn a trade or skill. Still other initiatives focus on training individuals already in a trade or profession to branch out and create a small business.

K-14 Models. The Kauffman Foundation (2002) suggested several successful models for K-14 entrepreneurship education programs. These programs each provided teacher training components, networking opportunities for teachers, and curriculum for students to learn the basics of entrepreneurship and to practice their skills; however, each program targeted a different student population in rural areas.

REAL. The Rural Entrepreneurship through Action Learning program, an activity-based, hands-on initiative that provides entrepreneurial education for elementary, middle, secondary school, and college students has been adopted in 43 states (REAL Enterprises 2004).

In 1984, Jonathon Sher observed that rural youth in North Carolina were unable to stay in their local communities with any realistic hope of finding higher-paying jobs and were unlikely to compete successfully for the few jobs of this kind that were available to them in metropolitan areas. Trained and acclimated to be job applicants, these youth were not prepared to see, or seize, economic opportunities in their communities. Sher envisioned "School-Based Community Development Corporations" as a way to help rural schools address this negative dynamic by providing positive opportunities for youth to stay and thrive as job creators in their communities.

From the first 10 pilot schools developed in North Carolina in 1984, REAL programs have spread across the United States. REAL provides teacher training, curriculum guides, a teacher and school network, research tools, communication and coordination assistance between schools and states, and opportunities for local and state REAL staff to share experiences. Students have experienced becoming

entrepreneurs by creating computer repair businesses, bakeries, newspapers, greenhouses, and many other small businesses. The REAL program was expanded in the mid-1990s to include a Mini-REAL program that provides entrepreneurial education programs for the K-8 grades.

Today, REAL has 290 schools of which 151 are postsecondary. The organization operates 92 community-based and on-line programs using 420 elementary and middle school facilitators. To date, 1,668 instructors have been trained, and currently more than 10,000 students annually receive a hands-on entrepreneurship education. The REAL program has succeeded in creating jobs in communities. For example, from 1992-1998, North Carolina REAL graduates started 245 businesses and expanded, improved, or purchased 175 businesses, generating total new sales revenues of over \$5 million and employment for 686 full- and part-time positions. The REAL program requires the following:

- A self-assessment to determine a student's potential and existing marketable strengths
- A community analysis to identify needs and trends in the local economy
- The development of a comprehensive business plan for a student's chosen enterprise
- Start-up support for participants who choose to open and operate enterprises. A Community Support Team of local entrepreneurs, financial institutions, community developers, and other members of the community are assembled to assist each local program.

Education, Training & Enterprise Center (EDTEC). EDTEC is a national youth entrepreneurship training company. Founded in 1985, EDTEC is a minority-owned firm with a mission to address the needs of youth in urban America by making the most of the human capital often overlooked by traditional training firms. EDTEC's entrepreneurship curriculum, The New Youth Entrepreneur, is a 12-volume set developed in conjunction with the Kauffman Foundation's Center for Entrepreneurial Leadership. From 2000-2002, the

firm provided training to more than 3,000 people, including educators, enterprise zone officials, federal employees, housing authority staff, and public housing residents.

Independent Means. This company offers products and services for female financial independence, including conferences, a business plan competition, and summer camps. The conferences are one-day programs that bring female entrepreneurs together with teen women for activities and discussion to explore entrepreneurship as a career option. The National Business Plan Competition invites women from 13 to 21 to submit a business plan to win one of five \$2,500 cash awards. Camp Start-up consists of residential summer camps where teen women learn to create a business plan, master a basic business vocabulary, and become acquainted with a set of business concepts.

The National Foundation for Teaching Entrepreneurship (NFTE). NFTE brings entrepreneurial training to high school students, especially those from low-income communities. Through its entrepreneurship training curriculum programs, NFTE provides students of all ages with an understanding of basic workplace and life skills. NFTE (2004) provides the following training curriculum:

- How to Start and Operate a Small Business is provided in four adaptable versions that can be used as a stand-alone course or be integrated into an existing math, social studies, economics, business, or technology course. This curriculum has been created for high school students.
- Middle School Curriculum (Fundamentals) is a textbook that provides a practical introduction to basic entrepreneurship and business concepts. This course, which was created for students in grades 6-8, can be a school-based course or an afterschool program.
- Internet-Based Curriculum (BizTech) is an on-line course for students and novice entrepreneurs of all ages. This course is interactive, entertaining, and easy-to-follow. It includes cyber field trips and interviews with entrepreneurs.
- Postsecondary Curriculum (Advanced Principles of Entrepreneurship) offers an in-depth analysis of business and entrepreneurial topics such as marketing, technology, cash flow, financial statements, and competition.

NFTE is headquartered in New York City and operates 13 regional offices (6 in the United States and 7 around

the world). In addition, the organization partners with experts in six states other than their regional offices. NFTE researches and analyzes the successes of entrepreneurial education offered through its regional offices. For additional information regarding their research materials, visit the NFTE website (www.nfte.com). Since its founding in 1987, NFTE curriculum materials have been used by more than 28,000 students taught by 1,200 trained teachers (Kauffman Foundation 2004).

Higher Education. Many innovative attempts to build an entrepreneurship education program to harness the talents and ambitions of community college and university students have been tried (Kauffman Foundation 2004). These programs help students learn how to create a business plan, develop a marketing plan, and locate financial resources and technical resources to start a business.

According to Kayne's 1999 review of state entrepreneurial policies and programs, the following programs provide a unique approach to entrepreneurship education at the higher education level.

The Iowa Entrepreneurial Consortium (IEC). IEC is a unique entrepreneurship program that coordinates the efforts of Iowa community colleges, the University of Iowa, the University of Northern Iowa, and the John Pappajohn Entrepreneurial Center at the University of Iowa to provide entrepreneurship education to all Iowa residents. Given the rural nature of the State of Iowa, this consortium was created to ensure access to students statewide as well as to those at community colleges, universities, and those not currently enrolled in higher education. FastTrac training courses and support services emphasizing business plan development, mentoring, and access to financial and informational resources have been made available in each community college district (North Iowa Area Community College [NIACC] 2004).

According to the 2002 FastTrac New Venture Survey, more than 200 new businesses have been begun across the state in more than 75 lowa counties. In a recent survey of participants, 45 percent have launched a new business. Of those surveyed, 76 percent started a new business on their own, 7 percent purchased an existing business, and 17 percent started a business with a partner. The businesses started by participants were 44 percent professional services/E-commerce, 29 percent retail, 18 percent manufacturing/construction, and 9 percent categorized as other (NIACC 2004).

In addition to FastTrac, the Pappajohn Center offers a speaker series, Web links, technical assistance, a technology transfer program, and access to a Technology Innovation Center. The Pappajohn Center program provides entrepreneurial training, business plan development, individual mentoring, and community lectures. The center at Iowa State University offers an undergraduate certificate in entrepreneurship to students in the College of Business and the Colleges of Engineering, Liberal Arts & Sciences, and the Health Sciences (NIACC 2004).

The McGuire Entrepreneurship Program. This program, housed in the Karl Eller Center at the University of Arizona, provides an undergraduate major and an MBA concentration in Entrepreneurship. Like many other programs, this McGuire Entrepreneurship Program provides internships, residencies, fellowships, and competitions to provide students with hands-on opportunities to learn and practice entrepreneurial skills. The center is unique in that it has formalized a partnership with the business community to create the Arizona Venture Forum in 1984. The purpose of the forum is to marshall the insights and perspectives of academic experts and business leaders in regards to innovative and compelling areas of growth in Tucson's fast changing business climate. Through presentations, panel discussions, and success stories, the forum explores current market, economic, and social conditions affecting businesses. Past topics have included the following:

- From Innovation to Application
- Marketing Strategies for Entrepreneurs
- Entrepreneurial Growth: The Financial Plan
- Successful Entrepreneurship: The Management Plan
- Venture Capital for the Entrepreneur
- Mastering Entrepreneurship: Marketing Strategies for New and Emerging Firms
- The Business Plan
- Staffing for Growth

The center also has researched the effects that entrepreneurship education has had on graduates of the University of Arizona Karl Eller College of Business and Public Administration. The research illustrates that graduates who have become entrepreneurs receive superior financial rewards, express greater job satisfaction, and demonstrate more self-sufficiency. The value of entrepreneurship programs at the University of Arizona is demonstrated by graduates who are self-sufficient, enterprising, and successful business and industry leaders,

who have an enhanced ability to create wealth, champion innovation, and promote opportunities for advancing technologies (Karl Eller Center 2004). The Arizona Venture Forum and the additional research component of the Karl Eller Center have helped address the rapidly changing Arizona business scene.

The Entrepreneurial Center at the University of Hartford.

This is a program housed in the Career Counseling Center within the community outreach division of the Hartford College for Women, one of the nine colleges of the University of Hartford. The center provides self-assessment workshops for current and prospective business owners, a comprehensive 16-week small business training program with approximately 85 participants per year, assistance with business plan development, support for research and sources of capital, access to a team of business advisors and graduate networking groups, referrals to professional services, and ongoing training courses for new business owners.

The Hartford program is unique in that it is not housed within the College of Business or Management. It is housed within the Career Counseling Center and organized to specifically assist women searching for career opportunities in business ventures (University of Hartford 2004).

The DuPree Center for Entrepreneurship and New Venture Development. This center was created in 1994 in the School of Management at the Georgia Institute of Technology and has focused its entrepreneurial education on specific targeted industries related to biomedical advancements. information technology, and entrepreneurial finance. The center has enabled an entrepreneurship component to be added to several existing curricular specializations. For example, the Program for Engineering Entrepreneurship, a collaboration between the DuPree College of Management, the College of Engineering, and the Woodruff School of Mechanical Engineering, provides a formal graduatelevel curriculum leading to a Certificate in Engineering Entrepreneurship. This program also provides short courses on a variety of topics for faculty, organizes an academic conference on technology entrepreneurship, and sponsors seminars by speakers who have made an impact on industry. The following are a few of the recent speakers:

- Thomas Dupree, Avedo Brands, Inc., which owns and operates Applebee's Neighborhood Grill and Bar restaurants
- Barbara Christmas, CEO, Tech High Foundation, a tuition-free public charter school featuring a

curriculum based almost exclusively on math, science, and engineering

 Ray C. Anderson, Chairman and CEO, Interface, Inc., a global company whose core business is modular carpet

The center provides information and technical assistance to community leaders, faculty, students, and the business and policy communities using an entrepreneurship curriculum and research dissemination (DuPree College of Management 2004).

The Johnson Center for Entrepreneurship and Innovation. Created in 1989 at Indiana University, this center has succeeded in reaching out to the Indiana business community and using the experience and expertise of these business leaders for the benefit of students and the university. The center formally serves as a link between the Kelley School of Business and Indiana's business community. In addition to undergraduate and MBA programs, business plan competitions, handson entrepreneurial experiences, and an entrepreneurial resource center, the Johnson Center hosts The Alliance, a forum of company leaders with a membership organization of presidents of established Indiana entrepreneurial companies with a minimum of \$10 million annual revenue and 50 employees. Quarterly meetings are held in Indianapolis featuring business professionals, distinguished university faculty, and Alliance members as speakers.

The Johnson Center also hosts Growth 100, which is dedicated to identifying and recognizing 100 of Indiana's rapid growth, high-potential companies. The Growth 100 program is a unique business resource, which offers statewide recognition, networking opportunities, and services designed to assist Indiana companies. As Howard Stevenson (2000) wrote in Why Entrepreneurship Has Won, entrepreneurship flourishes in communities where the success of entrepreneurship is celebrated. He found that entrepreneurial communities flourish when resources are mobile, successful members of the community reinvest excess capital in the projects of other community members, the success of other community members is celebrated rather than derided, and when change is seen as a positive rather than a negative (Johnson Center 2004). The Growth 100 program helps to celebrate Indiana's successful entrepreneurs and reinvest those intellectual talents and skills into the community.

The Dingman Center for Entrepreneurship. Housed in the Robert H. Smith School of Business at the University of Maryland, this center provides one of the most comprehensive entrepreneurship education programs in the country. It was awarded the NASDAQ Entrepreneurship Excellence Award for its comprehensive program, which combines academic programs with community-based resource networks to provide students with the opportunity to put their coursework into practice. The program includes an undergraduate Entrepreneurial Citation Program (E-Citation Program), an MBA Entrepreneurial Curriculum, an MBA Consulting Program that enables businesses to contract students to perform semester-long projects, and an Entrepreneurship Scholars Program.

In addition, the center provides a mentoring program, the Baltimore/Washington Venture Group, the Inner Circle Corporate Members program, the PIN (Private Investors Network) Program, a Marketing and Technology Assessment Program, and the Hinman Campus Entrepreneurship Opportunity (CEO) Program (Dingman Center for Entrepreneurship 2004).

The Austin Technology Incubator (ATI). Located at the University of Texas at Austin, ATI was established in 1989 to create wealth, generate jobs, diversify Austin's economy, and provide a learning lab for UT faculty, students, and staff. This innovative approach links university expertise, student lab experience, and effective public and private sector initiatives to create new infrastructures for wealth, job creation, and global competition.

As of 2002, ATI had created over 110 member companies, graduated 65 companies, housed 18 current companies, and created more than 2,850 high-paying jobs in Austin. The incubator has generated \$280 million in revenues in the year 2000, and \$1.2 billion in revenues since 1989. Three companies are public on the NASDAQ, and a dozen graduate companies from the incubator have been purchased. In addition, several companies have been created by UT Engineering, NASA research, and the UT Business School (Butler 2002).

According to Butler's 2002 study, ATI has shown that entrepreneurial education, research, and local investment can result in the creation of good-paying jobs for students and local residents, can diversify the local economy, and can create new informational and high technology companies.

Adult Entrepreneurship Programs. Several adult entrepreneurship programs have been created to serve adults currently in the workforce who wish to create their own businesses.

Southeastern Community College. A part of the North Carolina Community College System, Southeastern Community College created an innovative small business center to better coordinate several job creation programs

into one center. This center houses the REAL program, the Business Development Center, a small business incubator, one venture capital company, and the Micro-Enterprise Revolving Loan Program (Scott 2004).

Most recently, the Small Business Center at Southeastern Community College became a pilot for the National Assets for Independent Demonstration program. This program offers Individual Development Accounts (IDAs), which are matched savings accounts that help people build assets for their new businesses. This program also provides financial literacy training and financial counseling for new business owners. The approach helps link venture capital and small business incubator support to entrepreneurial students who are ready to begin a business venture (Scott 2004).

Commonwealth Corporation. Through the Commonwealth Corporation (2004), the State of Massachusetts sponsors an Entrepreneurial Training program to create jobs and contribute to economic development. The Massachusetts training program covers virtually all aspects of starting and running a business. The curriculum includes seminars on market research, marketing tools, strategic planning, networking, community resources, sales techniques, presentation skills, financial management, accounting and bookkeeping, and taxes as well as legal, insurance, human

resource, time management, and real estate issues. The program helps clients prepare and implement a specific, comprehensive business plan tailored to the needs of each entrepreneur.

Since 1989, this program has graduated more than 2,000 clients statewide, and 65 percent have opened businesses that have operated successfully for one year or longer. Besides providing employment for the entrepreneur, these businesses employed an average of 1.3 additional persons. The impact on the Massachusetts economy as a result of these business ventures is estimated to be more than 2.5 million dollars annually.

The REAL Program at Stanly Community College. Housed in Albemarle, North Carolina, this program has been especially successful in creating business ventures. Since 1993, graduates started more than 40 businesses in Stanly County, creating more than 80 local jobs. With both local support and strong leadership, 87 percent of business ventures started by REAL graduates since the early 1990s are still in operation. By contrast, only 20 percent of the business ventures started by graduates of other programs at the college or by community members with little or no business training have succeeded (Regional Technology Strategies 2004).

In Illinois

The Illinois Institute for Entrepreneurial Education (IIEE). IIEE (2004) fosters the growth and development of entrepreneurship. Created by the General Assembly in 1988, IIEE educates teachers and students about the viability of entrepreneurship as a career option, and to the role and contributions of entrepreneurs in economic development and job creation. IIEE has partnered with Illinois State University to promote entrepreneurship education and allow teachers in IIEE programs to earn up to six hours of graduate credit from ISU. IIEE works closely with educators and business leaders to create information networks, to support student ventures, and to connect educators to entrepreneurship teaching materials. IIEE has also partnered with Verizon to provide two-day training for 40 rural teachers from two rural sites in Illinois to share an entrepreneurship curriculum and textbook as well as to provide 14 continuing professional development units to fulfill professional development plans for teachers.

The SIUE International Trade Center. The trade center has paired SIUE students with nine Illinois businesses to assist in developing research on world markets for their products and creating an exporting plan for these small companies.

Many small businesses do not have the budget or the staff to develop their exporting plans or to begin contacting partners in their exporting venture. SIUE students assist these businesses while receiving hands-on experience in international trade and business planning (SIUE 2004).

The Institute for Entrepreneurial Studies at the University of Illinois—Chicago. This institute provides an Entrepreneurship Certificate in Business Administration, an Undergraduate Certificate Program, and an MBA concentration. The institute hosts an annual research symposium on marketing and entrepreneurship and offers a certificate for business owners and managers. UIC's Center for Urban Business provides programs for minority-owned enterprises as part of the institute. The institute has been recognized by NASDAQ as one of five national winners of the NASDAQ Entrepreneurial Excellence Award in 2001 and was honored by Entrepreneur Magazine as one of the nation's leading programs in April 2003 (UIUC 2004).

In the Spring of 2003, Governor Rod Blagojevich announced the creation of eight Entrepreneurship Centers in community colleges and universities across Illinois. Working with the Department of Commerce and Economic Opportunity, these centers will coordinate state universities, small business development centers, and the Illinois Opportunity Fund resources. With the creation of these centers, the State of Illinois has moved to expand both the support base for new entrepreneurs and the expansion of existing businesses.

In addition, Governor Blagojevich has created several Entrepreneurship Centers in local economic development organizations as part of the Opportunity Returns program. Since 2003, the Governor has announced centers in

the following communities: Chicago, Galesburg, Quincy, Rockford, Macomb, Champaign, Carbondale, Edwardsville, Peoria, and Rock Island.

Entrepreneurship can be a strong component of rural community and economic development planning. Community colleges, universities, and other educational institutions can help to build strong entrepreneurship education programs linking rural students with future job opportunities.

The Future

As educational institutions address the needs of students and regions, they will face a greater need to prepare students with viable entrepreneurial skills. Community colleges and universities are expected to expand access to entrepreneurship instruction, make available small business incubator support, provide links to venture capital funds, and offer the financial and legal expertise and technical assistance needed by local entrepreneurs. Based on a review of experiences with entrepreneurship programs at all levels, communities with appropriate education programs that support local entrepreneurs through curriculum, networking, mentoring, and resource

access can succeed in creating new, fast-growth small businesses that can provide employment for residents.

Such entrepreneurship programs are especially important in rural areas because without new business opportunities, the long-term outmigration of residents from rural areas will continue. Rural areas often lack the resources, capital, and personnel to attract large businesses. Therefore, the main employment growth must come from small business startups, and entrepreneurial education efforts can make all the difference in creating these businesses.

Additional Reading Materials

- Chao, E. L. 2002. Prepared Remarks by the Secretary of Labor at the National Legislative Seminar of the American Association of Community Colleges.
- Drury, R. L. 2001. The entrepreneurial community college: Bringing workforce, economic and community development to Virginia communities. *Inquiry 6*(1). Available online: <www.vccaedu.org/inquiry/inquiry-spring2001/i-61-drury.html>. Accessed: July 21, 2004.
- Forde, M. L. 2002. Community colleges: The center of the workforce development universe. *Community College Journal*, (June/July).
- Gibb, A. 1998. Educating tomorrow's entrepreneurs. *Economic Reform Today: Growing an Entrepreneurial Economy* (4): 32-38.
- Kolko, J. 1999. *The high-tech rural renaissance?: Information technology, firm size and rural employment growth.* Cambridge, MA: Harvard University.
- Meyer, G. D. 2001. *Major unresolved issues and opportunities in entrepreneurship education* (Coleman Foundation White Paper). Presented at the USASBE/SBIDA Joint National Conference, Orlando, Florida.
- National Commission on Entrepreneurship. 2000. *Building companies, building communities: Entrepreneurs in the new economy.* Washington, DC: National Commission on Entrepreneurship.

- National Commission on Entrepreneurship. 2003. *Building entrepreneurial networks: The nerve centers of thriving regional economies*. Washington, DC: National Commission on Entrepreneurship.
- Rural Community College Initiative. 2000. *Community colleges as catalysts for change in distressed rural communities* (National Assessment Report).
- Smilor, R. W. 1997. *Entrepreneurship and community development*. Los Angeles: Ewing Marion Kauffman Foundation, Center for Entrepreneurship Leadership,
- Van Der Werf, M., and G. Blumenstyk. 2001. Breeding businesses on college campuses. *The Chronicle of Higher Education* (March).

Resource Linkages

Center for International Private Enterprise – www.cipe.org

Kauffman Foundation's Center for Entrepreneurial Leadership – www.kauffmanfoundation.org

Kauffman Foundation's Center for Entrepreneurial Leadership Clearinghouse on Entrepreneurship Education – www.celcee. edu

National Association for Community College Entrepreneurship – www.nacce.com

National Commission on Entrepreneurship - www.ncoe.org

National Consortium of Entrepreneurship Centers - www.nationalconsortium.org

National Council on Economic Education - www.ncee.net

REAL Enterprises - www.realenterprises.org

References

- Brown, C. 2000. *Entrepreneurial education teaching guide*. Kansas City, MO: Kauffman Center for Entrepreneurial Leadership Clearinghouse on Entrepreneurship Education.
- Butler, J. S. 2002. The science and practice of new business ventures: Wealth creation and prosperity through entrepreneurship growth and renewal (Coleman Foundation White Paper). Austin: The University of Texas at Austin.
- Commonwealth Corporation. 2004. Available online: <www.commcorp.org>. Accessed: July 21, 2004.
- Dingman Center for Entrepreneurship. 2004. Available online: http://dingman.rhsmith.umd.edu/>. Accessed: August 4, 2004.

DuPree College of Management. 2004. Available online: http://mgt.gatech.edu. Accessed: July 21, 2004.

Illinois Institute for Entrepreneurship Education (IIEE). 2004. Available online: <www.iiee.org>. Accessed: July 21, 2004.

Johnson Center, Kelley School of Business. 2004. Available online: <www.bus.indiana.edu>. Accessed: July 21, 2004.

Karl Eller Center. 2004. Available online: <www.bpa.arizona.edu>. Accessed: July 21, 2004.

- Kauffman Foundation. 2002. K-14 entrepreneurship education market analysis. Kansas City, MO: Ewing Marion Kauffman Foundation.
- Kauffman Foundation, Center for Entrepreneurial Leadership. 2004. Available online: <www.kauffmanfoundation.org>. Accessed: July 21, 2004.
- Kayne, J. 1999. *State entrepreneurship policies and programs*. Kansas City, MO: Kauffman Center for Entrepreneurial Leadership, Ewing Marion Kauffman Foundation.
- Kourilsky, M. L. 1995. *Entrepreneurship education: Opportunities in search of curriculum.* Kansas City, MO: Kauffman Center for Entrepreneurial Leadership, Ewing Marion Kauffman Foundation.
- National Council on Economic Education. 2003. In the news (April): 4.
- National Foundation for Teaching Entrepreneurship (NFTE). 2004. Available online: <www.nfte.com>. Accessed: July 21, 2004.
- North Iowa Area Community College (NIACC). 2004. Available online: <www.niacc.edu/pappajohn/index.html>. Accessed: July 21, 2004.
- REAL Enterprises. 2004. Available online: <www.realenterprises.org>. Accessed: July 21, 2004.
- Regional Technology Strategies. 2004. *Stanly Community College REAL Enterprises profile*. Available online: <www.rtsinc.org/benchmark/profiles/profile38.php>. Accessed: July 21, 2004.
- Sahlman, W. A., and H. H. Stevenson. 1992. *The entrepreneurial venture: Readings*. Boston: Harvard Business School Publications.
- Scott, S. 2004. Southeastern Community College: Catalyzing economic development in rural North Carolina. Available online: www.rtsinc.org/benchmark/cstudies/cstudy7.shtml>. Accessed: July 21, 2004.
- Southern Illinois University at Edwardsville. 2004. Available online: <www.siue.edu./ITC/itcprojects.htm>. Accessed: July 21, 2004.
- Stevenson, H. H. 2000. Why entrepreneurship has won (Coleman Foundation White Paper). Available online: <www.colemanchairs.org/files/documents/16/stevenson_04_15.pdf>. Accessed: July 21, 2004.
- University of Hartford. 2004. Available online: <www.hartford.edu>. Accessed: July 21, 2004.
- University of Illinois at Chicago. 2004. Available online: <www.uic.edu/cba/ies>. Accessed: July 21, 2004.