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ABSTRACT

This book was compiled to provide examples of partnerships between education and economic development agencies and to reinforce, with statistics, the importance of entrepreneurship in the U.S. economy. The first chapter, "Contributions of Small Business and Entrepreneurship Education to Economic Development," by E. Edward Harris, discusses economic development challenges and opportunities, the small business climate, small business incubators, and entrepreneurship education. The role of entrepreneurs in creating new economic opportunities and ways in which state education policy can promote entrepreneurship are outlined in the chapter contributed by Roger J. Vaughn, "Entrepreneurship, Economic Development, and Education." The third chapter, "Vocational Education's Expanding Role in Economic Development," provides an overview of vocational education's past and present role in fostering economic development. It consists of an introduction by Marj P. Leaming and P. Anthony Zeiss, followed by a paper by Zeiss describing the Pueblo Business Assistance Network and entitled "Local Initiative for Economic Development." Concluding the volume is a paper by the Illinois State Task Force on Entrepreneurship Education entitled "An Action Plan for Entrepreneurship Education in Illinois." A list providing sources of information on small business incubators, compiled by E.E. Harris, is appended. (MN)

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ED 271 584

Special Publication Series No. 54

ECONOMIC VALUE OF ENTREPRENEURSHIP

Edited by
Paula Kurth

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The National Center for Research in Vocational Education
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FOREWORD

Entrepreneurship is a fairly new emphasis in education. Traditionally, education has prepared individuals for jobs in existing businesses and industry. Now, however, the United States is recognizing the important economic contributions of the small business sector. Education is responding to this recognition by not only developing courses and programs to train entrepreneurs, but also by recognizing the need to work in close partnership with economic development agencies. Vocational education has taken the leadership in infusing entrepreneurship education in all levels of the public education system.

Education's goal of preparing individuals to earn a living and the economic development goal of providing a favorable climate in which the entrepreneur can flourish are extremely compatible. Some state divisions of vocational education have had the vision to mobilize their educators to work with economic development agencies via state entrepreneurship task forces. These states are pioneers from whose examples we can learn.

Therefore, this book has been compiled by the National Center for Research in Vocational Education in cooperation with the National Entrepreneurship Education Consortium to provide examples of partnerships between education and economic development agencies and to reinforce, with statistics, the importance of entrepreneurship in the U.S. economy.

The National Center expresses its appreciation to the following state liaison consortium members for their submissions: Dr. Marj Leaming, Colorado; Dr. Nona Denton, Illinois State Department of Education; and David Gillette, New York State Department of Education. The National Center is also indebted to Dr. Roger J. Vaughan, Dr. P. Anthony Zeiss, and Dr. E. Edward Harris for permission to print their work.

The National Center wishes to acknowledge the leadership provided to this effort by Dr. Robert E. Taylor, recently retired Executive Director. The National Center is further indebted to the staff members who worked on the publication. The document was conducted in the Personnel Development, Field Services Division, Dr. Lucy Thrane, Associate Director. Dr. M. Catherine Ashmore served as Program Director, Dr. Novella Ross served as Project Director, and Paula Kurth served as publication coordinator. Michele Naylor provided technical editing, and final editorial review of the paper was provided by Judy Balogh of the National Center's editorial services area.

Chester Hansen
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Executive Summary

What will be the quality of life for those individuals living in the decades ahead? Economic development leaders across the nation are faced with a myriad of challenges as they seek to answer this question. While it is common knowledge that such factors as lagging productivity, rapid changes in technology, and a 50 percent change in the job base every 5 years are the major reasons for economic development problems, it is far from conclusive as to how these problems can be dealt with and the economy revitalized. During the past decade, the major goal of many local, regional, and state plans for revitalizing the economies have been designed to foster and strengthen commerce and industry retention and expansion by (1) increasing productivity, (2) encouraging entrepreneurship, and (3) creating a favorable business climate through community support.

President Reagan, in his 1984 small business address at the National Issues Conference, summed up a national sentiment toward small business when he said, "Small business employs about half of our private work force, contributes 42 percent of sales, and generates about 38 percent of our gross national product. Small firms are on the cutting edge of innovation, providing products, ideas, and opportunities for the future. Small business is dreaming impossible dreams and making those dreams come true. Indeed, small business is America."

Economic developers, consequently, are beginning to realize that small business is the backbone of the economic development potential. Therefore, these developers are targeting to help new small businesses get started and to help existing small businesses grow to their full potential.

At a time when the substantial contributions of small business and entrepreneurs are becoming more apparent and better understood, there are also efforts being initiated to be more responsive to the needs of small business.

One of the most dramatic recent developments in business and economic education is the proliferation of academic courses designed to teach students how to become entrepreneurs. More than 170 business schools now offer such courses--compared with fewer than 10 in 1970--and the entrepreneur has become a respectable subject of academic research.

The national vocational education community, on the other hand, has assumed a leadership role in designing state plans to infuse entrepreneurship education in all levels of vocational and adult education. Working as partners with business, education, labor and government, vocational educators have organized state-level task forces. These task forces serve as catalysts to accomplish their charge by developing action plans for entrepreneurship education. Key to the successful implementation of the plans of action that have been developed within the various states is close collaboration between vocational education and economic development agencies.

The primary issue at hand is to define vocational education's role in the economic development cycle. Feeling a need to address this concern, the National Entrepreneurship Education Consortium solicited papers from its member states on the topic of entrepreneurship education as a viable economic development strategy to be published in this document.

The authors of this publication realize the critical need small business owners have for entrepreneurship education and view the vocational education community as a key provider of that education. If economic development strategists are really going to support the small business sector, education can not be ignored and the vocational education sector is a logical and necessary partner in that delivery system.

INTRODUCTION

That small businesses are an important part of the American economy is a generally accepted fact. However, the extent of the impact is not known by many people. It is important that the educational system in the United States accept entrepreneurship preparation as a legitimate objective within the educational programs of this country.

Entrepreneurship education is especially appropriate to vocational education. Therefore, it is of extreme importance that vocational educators at all levels be familiar with the economic value of entrepreneurship and be provided with not only that information but also information regarding education's partnership role in the economic development networks.

Recognizing the need to identify and share this information, the National Entrepreneurship Education Consortium requested that the National Center for Research in Vocational Education, in partnership with them, develop a publication on the economic value of entrepreneurship. This series of three papers deals with the general theme of the economic value of entrepreneurship and the role education can play in strengthening the economy through support of entrepreneurship. The papers were written independently of each other, one in Illinois, one in New York, and one in Colorado.

The first paper, "Contributions of Small Business and Entrepreneurship Education to Economic Development," discusses economic development challenges and opportunities, the small business climate, incubators, and entrepreneurship education.

The second paper, "Entrepreneurship, Economic Development, and Education," describes the role played by entrepreneurs in creating new economic opportunities and outlines ways in which state education policy can be used to promote entrepreneurship.

The third paper, "Local Initiative for Economic Development," describes the Pueblo Business Assistance Network (PBAN). The network consists of four major assistance groups: an intake and assistance center, a cooperative volunteer assistance group, a seed/venture capital investment fund, and an incubation facility to support new businesses.

In addition to the three papers, a fourth paper is included which contains a report prepared by the Illinois State Task Force on Entrepreneurship Education. This report contains the task force's plan of action for implementing entrepreneurship education in Illinois.

An appendix is included in this document; it contains information on resources regarding incubators.

The opinions expressed in this document are solely those of the authors.

CHAPTER 1

CONTRIBUTIONS OF SMALL BUSINESS AND ENTREPRENEURSHIP EDUCATION TO ECONOMIC DEVELOPMENT

ABOUT THE AUTHOR

E. Edward Harris is a professor of Marketing and Entrepreneurial Education, College of Business, Northern Illinois University. He has chaired the Governor's Task Force for Regional Economic Development in Illinois, and has been listed in Who's Who in the World, Who's Who in America, and Who's Who in the Midwest. Dr. Harris received his B.S. in distributive education from the University of Northern Iowa, his M.A. in distributive education from the University of Minnesota, and his Ed.D. from Northern Illinois University. Dr. Harris is widely published; the Illinois Management Model for Economic Development is available from the Educational Resources Information Center as ED 251596.

Economic Development Challenges and Opportunities

What will be the quality of life for those individuals living in the decades ahead? Piece by piece, the facts, perceived trends, and educated guesses are beginning to drop into place to form a broad mosaic of challenges and opportunities for economic development leadership.

Yet the economic future is unknown. Only glimpses of this new world can be seen in parts of Japan, California, and a few other places. And these may not become the future, but only experiments on the way to the future. Though we can be fairly sure that robotics, electronics, new materials, fiber optics, and satellites will be part of the future, we do not know how the pieces will be put together or what technologies or types of business organization will be used to produce the products of the future. We do not know how the potential for decentralization, which is inherent in the new knowledge and communication technology, will be used and who will benefit. We do know, however, that the first nations and states that correctly ascertain the outlines of the future economic landscape will be in a better position to produce the products and services for this future than those countries that are content to produce the products for the present.

Research conducted at the Massachusetts Institute of Technology, Brookings Institute, Harvard, SRI International, and the Northeast-Midwest Institute highlights the need for effective long-term economic revitalization strategies:

- The inability of commerce and industry to adjust and implement new technology, which is changing every 5-7 years, is the most crucial problem facing America.

- Between 1980 and 1982, small firms generated 2,650,000 new jobs whereas large businesses lost 1,664,000.
- Approximately 50 percent of the jobs in a given area change every 5 years, and only 1-2 percent is due to relocation of commerce and industry.
- Small firms produce 24 times more innovations per research dollar than large firms.
- A trained work force is the key to increased economic efficiency. Constant retraining and updating is a necessity. Investment in human resources is both the quickest and the most efficient way of increasing productivity.
- The ability to develop the spirit of entrepreneurship is the key to the future.

These challenges and opportunities have emerged as a result of several key factors that have been clearly identified in the 1984 report of the American Economic Development Council. First, in the past decade worldwide structural and cyclical changes in economic conditions and trends have catapulted developed nations, including the United States, into a global economy; second, management and labor in many of America's mature industries have failed to remain competitive in technology, product quality, and per-unit costs; third, many areas in the United States have failed to maintain community competitiveness for investment, due in some respects to neglect (for example, public infrastructure, deterioration in older cities) and in others to shortsightedness (for example, diminishing water resources in parts of the Southwest caused by overdevelopment); fourth, and principally as a consequence of the first three factors, participation has expanded in economic development decision making and initiatives at all levels of our economic system, particularly through the involvement of private sector leaders in both business and labor; and finally, financial support by the federal government for local development organizations and initiatives has been substantially reduced, leading to a corresponding increase in competition among local development organizations for support from both local and state governments and, increasingly, from commerce, industry, and foundations (Economic Development Today 1984).

Productivity in America must keep pace with other industrial nations. In the short run, lagging productivity increases inflation and unemployment, lessens the standard of living, and decreases the ability of America to compete successfully in world markets. Productivity affects employment rates directly in two ways. First, lagging productivity provides a reduced foreign market share for U.S. products, which, in turn, means layoffs. Second, lagging productivity causes excessive inflation. Research by Anthony Carnevale shows that to reduce inflation by 1 percent, America must throw a million people out of work for 3 years, which adds over \$25 billion to the national deficit (Carnevale 1981).

Since 1972, the United States has slipped from second to seventh place in terms of percentage of skilled workers in the work force. American businesses are exporting fewer goods requiring technical skills for their manufacture while, at the same time, importing increasing numbers of products produced by workers possessing technical skills.

The following statements from research conducted by the Northeast-Midwest Institute highlight the need for employment education and training:

American Workers face an uncertain economic future. Technology and foreign trade are making millions of existing jobs obsolete. The academic and functional skills of most workers are too antiquated for the new replacement jobs that already are emerging. Neither business nor government is adequately prepared to help workers with retraining or adjustment assistance. In sum, America needs, but lacks, a national training strategy.

The absence of such a strategy is a major barrier to America's economic renewal. Thus we are overlooking critical means to generate economic growth and strengthen the competitiveness of the U.S. economy--namely, improving the quality of the performance of the American work force. Yet investment in workers is as essential to national economic renewal as investment in improved plant, equipment, and technology. After all, more complex machines and more sophisticated technologies require better trained workers (Choate 1982, p. 1).

The conclusion to the report of the Northeast-Midwest Institute entitled "Retooling the American Work Force" clearly identifies the need for a viable employment training policy.

Economic renewal must be the fundamental goal of American domestic policy at all levels for the balance of this century. In the debate over how to generate economic growth and strengthen the competitiveness of U.S. industry, one critical means of restoring productivity growth often is overlooked: improving the quality of the performance of the American work force.

Even if the nation relies primarily on increased capital investment and technological innovation for achieving productivity gains, advanced technologies and complex machines require highly skilled workers. Indeed, investment in American workers is as crucial to economic renewal as investment in improved plant, equipment, and technology.

At this critical juncture in America's economic life, it is both necessary and possible to use America's human capital as a major resource for economic renewal. However, if this is to happen, substantive reform of the nation's employment and training policies, institutions, and programs is required. Such reform involves more than tinkering with existing policies, but less than wholesale change. It calls for a comprehensive, unified approach to

employment and training policy that effectively and coherently coordinates efforts by all levels of government, the private sector, and workers (Choate 1982, p. 46).

Herbert Striner, recognized expert on productivity, made the following statement: "The wealth of any nation is a well-trained specialized labor force." Yet, according to Striner, "The U.S. has shown itself unwilling to invest in major training and education efforts to serve the skill needs of our private and public sectors. This inadequate investment in human resources is directly tied to our problems of inflation and productivity" (Striner 1981, p. 1).

Robert B. Reich, writing in The Next American Frontier, identified the central thrust of the economic development problem and highlighted the need for long-term strategies to revitalize the economy when he stated, "Everywhere America has looked, it has seen the symptoms of its economic impasse, but it has been unable to recognize the actual cause because the roots of the problem are so deeply embedded in our business enterprises, labor unions, and government institutions" (Reich 1983, p. 44).

According to a 1983 survey conducted by Opinion Research Corporation for The LTV Corporation of over 500 opinion leaders throughout the United States (business executives, members of the media, labor union leaders, public interest groups, elected and appointed state government officials, and members of the academic community), two-thirds of this diverse group believe that the economic changes taking place in the United States today are not part of the normal business cycle with its periodic upswings and downturns, but are basic and permanent (Economic Development Today 1984).

Although research does identify the major reasons for economic development problems such as lagging productivity, rapid changes in technology, and a 50 percent change in the job base every 5 years, it is far from conclusive as to how to revitalize the economy.

Economic Development Models

Economic development has been defined as a set of planned strategies designed to attract, expand, and revitalize existing commerce and industry and to increase the productivity growth rate. As a result, the quality of life in a community, region, or state will be positively changed.

The ability of a nation, state, region, or community to respond to the challenges inherent in being an integral part of a highly competitive international market requires careful planning. To be most effective, the economic development planning process must be customized so as to maximize competitive advantages. This planning challenge is particularly acute and complex when technology is changing at such a rapid pace.

During the past decade, local, regional, and state plans for revitalizing the economies have been designed and implemented throughout the

country. The major goal of many of the plans is to foster and strengthen commerce and industry retention and expansion efforts by (1) increasing productivity, (2) decreasing business failures, (3) encouraging entrepreneurship, and (4) creating a favorable business climate through community support.

The most successful models are based on premises such as the following:

- Economic development begins at home. The key is a knowledgeable and competent local staff and/or regional economic development council with a well-trained and highly motivated staff.
- Economic revitalization will best take place if there is maximum cooperation and collaboration between and among commerce, industry, education, labor, and community and government agencies.
- Cooperative and collaborative efforts will be most successful when the participating partners can clearly and fully see how they will benefit.
- Effective private and public sector cooperative arrangements on a local and regional basis help eliminate duplication of efforts and minimize the use of scarce resources.
- Small business, which generated almost all of the 20 million new jobs in the past decade, will continue to be the prime creator of new jobs in America in the next 10 years.
- Investment in human resources is the best way to increase innovation, productivity, and quality of life.
- The most cost-effective way to create new jobs is through training existing firms as opposed to bringing in new corporations.
- Local and regional needs and differences can be most effectively addressed if given adequate support from private and public sector organizations--a grass roots model.
- Unemployment and economic decline are related problems that will emerge in various communities and regions at different times. There is little need to try to provide supportive services until a community "hurts enough" and is ready to address its own problems and make a full commitment to implement economic revitalization strategies.
- Educational institutions can become significantly more effective in marketing their services and improving their capacity to provide for the research, technical assistance, and training needs of commerce and industry.

- Education plays a key role in the economic revitalization scenario and must make an appropriate commitment.
- The need for government to keep costs down, to create a favorable tax climate, and to work in partnership with labor and management to develop strategies for effective international markets has never been greater. (Harris 1984)

The key to economic development is a knowledgeable and competent local/regional economic development staff that has the ability to determine the needs of commerce and industry and to serve these needs by marshaling the appropriate resources and agencies.

Figure 1 contains a copy of the state of Illinois management model for economic development that has enjoyed national attention whereas figure 2 highlights the four key foundations of economic development. The remainder of this chapter will be devoted to addressing these four foundations of economic development, with a primary emphasis on entrepreneurship education as a viable economic development strategy.

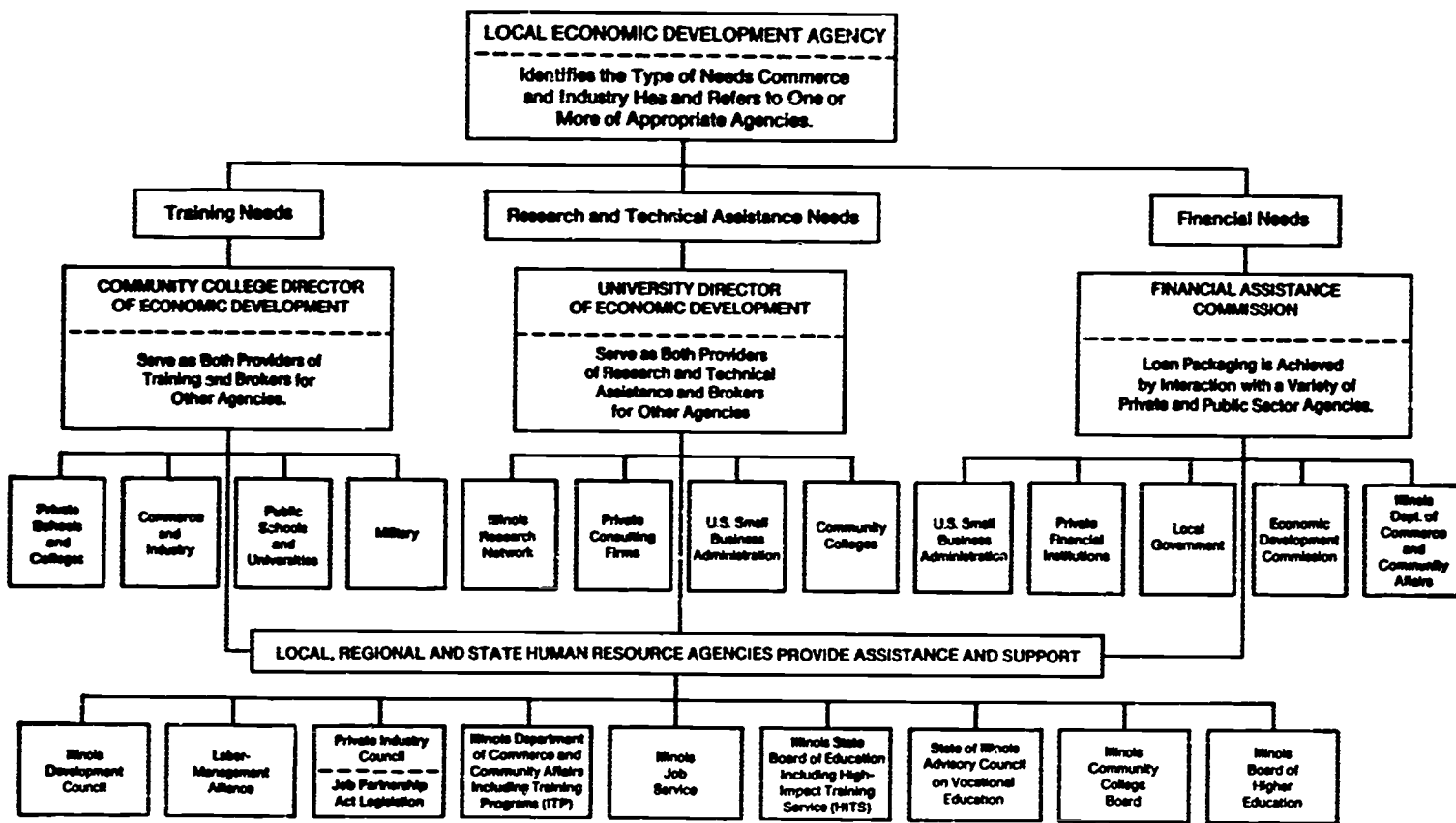
The Small Business Crest in America

President Reagan, in extending greetings at the 1984 Small Business National Issues Conference, summed up a national sentiment toward small business when he said, "Small business employs about half of our private work force, contributes 42 percent of sales, and generates about 38 percent of our gross national product. Small firms are on the cutting edge of innovation, providing products, ideas, and opportunities for the future. Small business is dreaming impossible dreams and making those dreams come true. Indeed, small business is America" (Small Business National Issues Conferences 1984 Final Report 1984, preface).

John Sloan, president of the National Federation of Independent Business, which represents more than half a million small--and independent-- businesses in America, while emphasizing the national popularity of small business and entrepreneurship, said, "small entrepreneurs are the 'good guys' doing 'good things' for an economy and society which have struggled over the last five years. Entrepreneurs are once again believed to be the future: bureaucracies are for the first time believed to be the past" (Sloan 1984, p. 1).

Kelley (1984 p. 36) cites the following statistics from The State of Small Business: A Report of the President, published in 1983 by the Government Printing Office.

- There are 16.8 million small businesses in the U.S.
- They represent 75.5 percent of all U.S. businesses.
- They created 47 percent of America's new jobs in 1983--2.65 million jobs--while industrial America cut 1.7 million.
- They provide 67 percent of initial job opportunities and on-the-job training.



SOURCE: Harris (1984, p.5).

Figure 1. Management model for economic development

**Foundation for Economic
Development is Fostering and
Strengthening Business and
Industry Retention and
Expansion**

- 1. Help Increase Productivity**
- 2. Help Decrease Business Failures**
- 3. Help Encourage and Aid Entrepreneurship**
- 4. Help Create a Favorable Business Climate Through Community Support**

SOURCE: Harris (1984, p.8)

Figure 2. Key foundations of economic development

- They are primarily in the wholesale, service, and construction industries.
- The majority employ 20 or fewer.
- Fifteen small businesses are launched for every ten that fail.
- In 1983, small businesses achieved a new growth record of 12.9 percent.
- Female-owned small businesses are increasing at a rate of 35 percent, while male-owned are increasing at a rate of only 7 percent.

Today, a major portion of America's approximately 16.8 million small businesses are one-person or family-owned enterprises. Small businesses employing one or more persons generate most of the new jobs in the economy. It is well recognized that entrepreneurial activity contributes significantly to economic development and, for many people, provides self-employment satisfactions.

The March 1984 U.S. government publication entitled The State of Small Business: A Report of the President showed that, in terms of creating employment opportunities, small firms outperformed their larger counterparts during both the recovery period and the preceding recession. About half of the newly created positions were in the rapidly growing service industries, with 90 percent of these created by small service firms. From September 1982 to September 1983, industries dominated by small firms had a net employment gain of 2.6 percent compared to 1.2 percent for large-business-dominated industries (The State of Small Business 1984).

Eighty-five percent of the new jobs created since 1980 have been in the Pacific, Northwest, Southwest, South Central, and Mountain regions. The continued growth of the service sector, outpacing the growth of traditional manufacturing industries, reinforces the necessity for responsive programs to help workers make job transitions caused by economic dislocation. Small businesses can have a significant impact in providing job development and training opportunities for all types of dislocated workers.

The small business sector is particularly important in assisting regional economic transitions. The president's report found that younger workers, older workers, and female workers are more likely to be employed by small firms than large businesses. A major reason is that small businesses are more able to provide flexible and part-time working arrangements.

The report highlighted the fact that minority entrepreneurs are playing an increasingly important role in this recovery.

- The number of minority self-employed workers rose by 43 percent since 1982, a rate 8 percent higher than white self-employed workers.
- The number of women-owned firms total 2,300,000, an increase of 10 percent from 1980 and 33 percent from 1977.
- Most women-owned businesses are in retail trade and service industries.
- New workers entering the work force are also more likely to be women than men.
- The percentage of women in the labor force is projected to increase from 42 percent in 1982 to 48 percent in 1995 and will probably account for nearly two of every three additions to the labor force over the next decade.

The report from the President of the United States to the Congress on small business also showed that in 1983 new business incorporations rose by a record 600,000, indicating that more and more Americans are going into business for themselves. The previous record, 580,000, was set in 1981.

Between January and September 1983, business starts increased 12.9 percent over the same period in 1982, another sign of the increase in small business. In terms of job creation, the service industry continued to be the fastest growing job generator between 1980 and 1981, accounting for about 52 percent (1.2 million jobs) of the total increase in new jobs; small firms accounted for 89.6 percent of this growth.

Individuals in many states adapted to the 1981-1982 recession by starting new businesses. The recession-induced increases in proprietorship income are reflected in the continued increases in self-employment between 1980 and 1982. Table 1 presents a comparison of the degree of small business employment.

TABLE 1

CLASSIFICATION OF STATES ACCORDING TO
DEGREE OF SMALL BUSINESS EMPLOYMENT

Least Small Business Employment ¹	Average Small Business Employment ²	Most Small Business Employment ³
Alabama	Arkansas	Alaska
Connecticut	California	Arizona
District of Columbia	Colorado	Florida
Georgia	Delaware	Idaho
Illinois	Hawaii	Kansas
Indiana	Iowa	Minnesota
Kentucky	Louisiana	Montana
Massachusetts	Maine	Nebraska
North Carolina	Maryland	New Hampshire
Ohio	Michigan	New Mexico
Pennsylvania	Mississippi	North Dakota
South Carolina	Missouri	Oklahoma
Tennessee	Nevada	Oregon
West Virginia	New Jersey	Rhode Island
	New York	South Dakota
	Texas	Vermont
	Utah	Wyoming
	Virginia	
	Washington	
	Wisconsin	

Note: In 1982, small firms with fewer than 100 employees comprised 34.6 percent of U.S. employment.

¹Less than 30 percent of total employment is in small firms of under 100 employees.

²Between 30 and 35 percent of total employment is in small firms of under 100 employees.

³More than 35 percent of total employment is in small firms of under 100 employees.

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base.

SOURCE: The State of Small Business (1984, p. 45)

Job Creation

The implications of research conducted at both the Massachusetts Institute of Technology and Brookings Institute on job creation need to be carefully analyzed by policymakers. The Massachusetts Institute of Technology research shows that 50 percent of the jobs in a given area change every 5 years, that 80 percent of the replacement jobs are created by firms with 100 or fewer employees, and that 89 percent of the newly created jobs are in the service sector (Birch 1979). However, the research conducted at the Brookings Institute shows that a significant portion of the growing, small establishments are branches or subsidiaries of large firms. "In fact, nearly half of the establishments with 20-99 employees are owned or controlled by larger firms." This means that, in general, the net employment growth contributions of both small and large businesses appear nearly proportional to their respective shares of the labor force (Armington 1982, p. 3).

Brookings Institute offers the following recommendations in planning for economic development.

Although the increase in employment attainable through the location of a large branch of a major firm is attractive, such occurrences are relatively rare and unlikely to provide the jobs needed for economic revitalization or survival. Furthermore, larger firms have the financial and managerial resources to shift their focus to expanding industries and regions while curtailing operations in declining areas. Thus, an obvious note of caution is due against over-reliance on large multi-location firms as a foundation for long-term economic development (Armington, 1982 pp. 3-4).

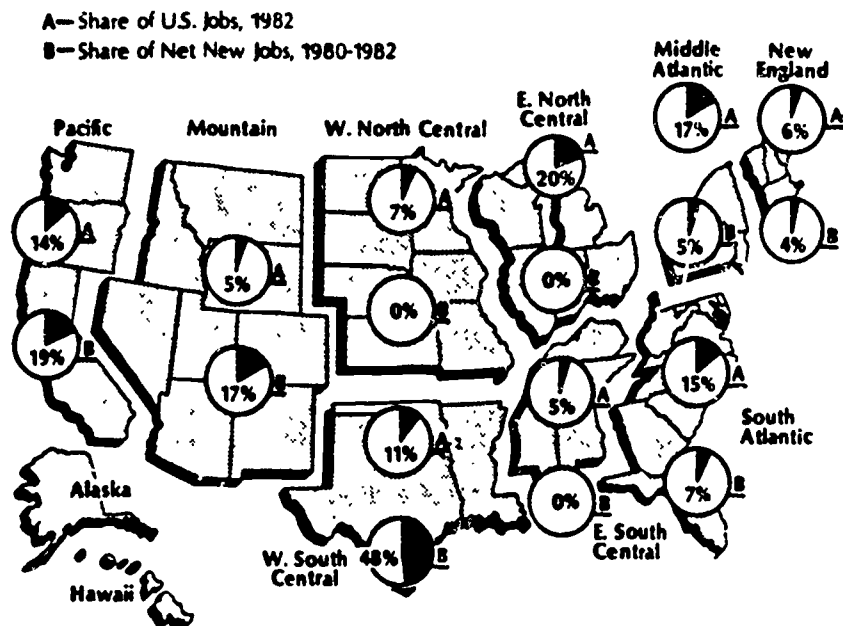
An intrinsic part of the community, small business is more responsive to local influences, more willing to adapt to local conditions, and less likely to migrate to other locations. In addition, the rate of employment growth in small businesses (8.3 percent) is somewhat higher than in large businesses (6.9 percent). This suggests that small business might provide better long-run prospects for increasing job opportunities (Armington 1982).

Some parts of the United States are growing at a faster rate than others. According to the 1984 small business administration report to the president, 85 percent of the new jobs created between 1980 and 1982 came from three regions of the United States: the Mountain, Pacific, and West South Central regions. These regions all contributed a large share of jobs relative to their share of employment in the United States in 1980 (figure 3) (The State of Small Business 1984).

Nationally, small firms with under 20 employees generated virtually all of the 984,000 net new jobs between 1980 and 1982, with the increase of 2,648,000 jobs in small business offsetting the loss of approximately 1,664,000 jobs in large firms.

At the regional level, some of these offsetting effects were significant. There were 685,000 jobs lost in the East North Central, West North Central, and East South Central regions between 1980 and 1982. Small firms with fewer

than 100 employees generated 310,000 net new jobs to partially offset the job losses in large firms in these regions. Creation of new jobs by small firms in stagnant regions during the recession helped these regions through a period of economic adjustment (The State of Small Business 1984).



Note: The States included in each of the regions are as follows:

- New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.
- Middle Atlantic—New York, New Jersey, Pennsylvania.
- E. North Central—Ohio, Indiana, Illinois, Michigan, Wisconsin.
- W. North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.
- South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.
- E. South Central—Kentucky, Tennessee, Alabama, Mississippi.
- W. South Central—Arkansas, Louisiana, Oklahoma, Texas.
- Mountain—Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.
- Pacific—Washington, Oregon, California, Hawaii, Alaska.

The East North Central, East South Central, and West North Central experienced an employment loss from 1980 to 1982.

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base.

SOURCE: The State of Small Business (1984, p. 43).

Figure 3. Share of U.S. jobs: 1982 and share of net new jobs: 1980-1982, by major census region.

Economic developers, consequently, are beginning to realize that small business is the backbone of the economic development potential of any region. Rather than giving away huge tax benefits to attract large established corporations, these developers are targeting to help new small businesses get started and to help existing small businesses grow to their full potential. Governor Celeste of Ohio has targeted a 10-year plan to support entrepreneurship. Following are his five major goals for Ohio:

- Transform Ohio into a leading state-of-the-art manufacturing center, through an industrial reinvestment strategy.
- Restore Ohio's leadership in agriculture and agribusiness.
- Make Ohio the premier state for stimulating and supporting entrepreneurship and small business.
- Target and leverage all available state, federal and private dollars toward getting Ohio working again.
- Invest in Ohio's most important resource--its people--through a system of job training and retraining targeted to industry needs and growth opportunities (Toward a Working Ohio 1983, pp. 37-38).

This strategy faces the reality of diversity of job sources in a community as a barrier to sudden change and job loss. In the recent movement of major industry to other countries we have learned the hard lessons of community dependence on a single large industry. Instead, community leaders must plan for an economic development system that can respond to the dynamics of change, the opportunities of the marketplace, and the role of small business.

The Small Business Climate

At a time when the substantial contributions of small business and entrepreneurs are becoming more apparent and better understood, there are also efforts being initiated to be more responsive to the needs of small business. Research is being conducted at state and national levels, small business conferences are being held, and strategies are being initiated by a wide array of private and public sector agencies. Participants in the June 1984 National Small Business Issues Conference identified 41 issues including entrepreneurship and independent business ownership and proposed courses of action. Partly as a result of this conference, a White House Small Business Conference will be held in 1986 (Small Business National Issues Conferences 1984 Final Report 1984). The conference will focus on the following nine broad issue areas:

- Economic policy
- Education and training
- Finance

- Innovation
- International trade
- Payroll costs
- Procurement
- Regulation and paperwork
- Taxation

Preliminary meetings will be held in each state to develop these broad issues further as they apply to local problems and to elect delegates for the national conference.

Characteristics of Small Business Owners

Who are these entrepreneurs who will be so essential to our economic development policies? In order to enhance the growth of existing business and promote development of new ventures, it is critical to understand the personal and environmental characteristics that affect their success in the marketplace.

Small business owners come from all types of backgrounds. They are vastly different from the corporate manager. A Purdue University study found three distinct types of individuals who go into business for themselves (Kelley 1984):

- The technical expert. This small business owner knows the product or service intimately. He or she can design, create, and perform at a high level of proficiency.
- The independent individual. Many creative people cannot function well in a corporate setting but thrive on their own. In fact, many successful small business owners who sell their businesses start new ones to avoid having to work in large corporations.
- The growth-oriented person. This individual starts a business to reach financial or growth goals, a popular entrepreneurial motivation among retired persons. (p. 39)

Kelley goes on to cite articles that discuss the characteristics successful business owners share. Entrepreneurs must be--

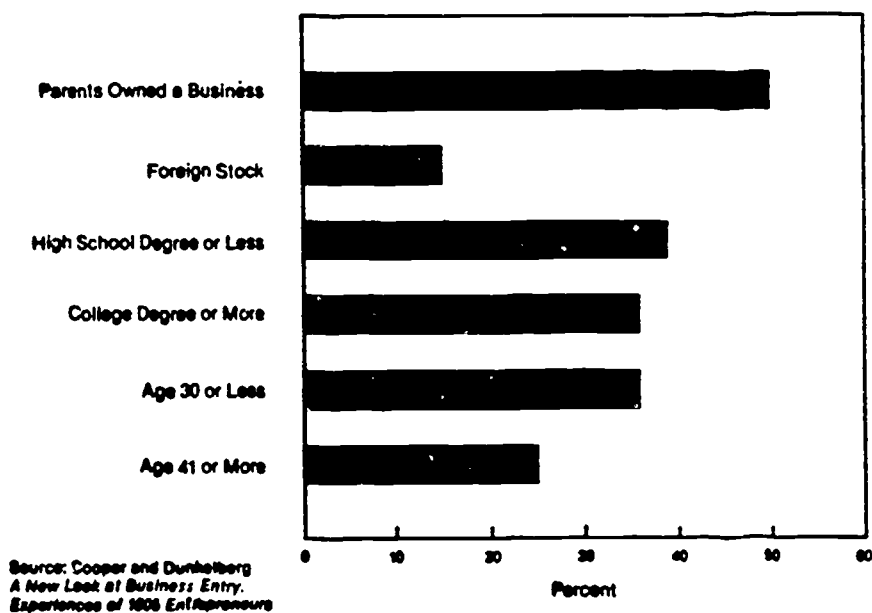
- intellectually creative.
- impatient with bureaucracy.
- self-confident.

- esteemed by his or her employers.
- articulate.
- fanatical about fundamentals.
- attentive to finances and operations.
- involved in every aspect of the business.
- supportive of experimentation.
- able to think like his or her customers think.
- able to develop and motivate employees and tie incentives to performance.
- persevering.
- committed to heavily reinvest in the business and focus on long-term results.
- able to create an environment conducive to outstanding work.
- healthy and energetic.
- street smart.
- self-reliant, self-motivating, and achievement oriented.
- able to measure success by results and current achievement against previous achievement rather than by someone else's achievement.
- able to perform without peer approval.
- tolerant of ambiguity.
- able to enjoy and use power wisely.
- able to concentrate.
- resilient.
- accessible to employees, customers, and the community.
- able to maintain a problem-solving attitude in a crisis.

Research conducted by the National Federation of Independent Businesses at Purdue University presents some interesting challenges for educational decision makers. "There are some who think that people who start businesses--entrepreneurs--are 'born, not made'. Yet, the study of company founders suggests that a variety of experiences which people have may make them more or

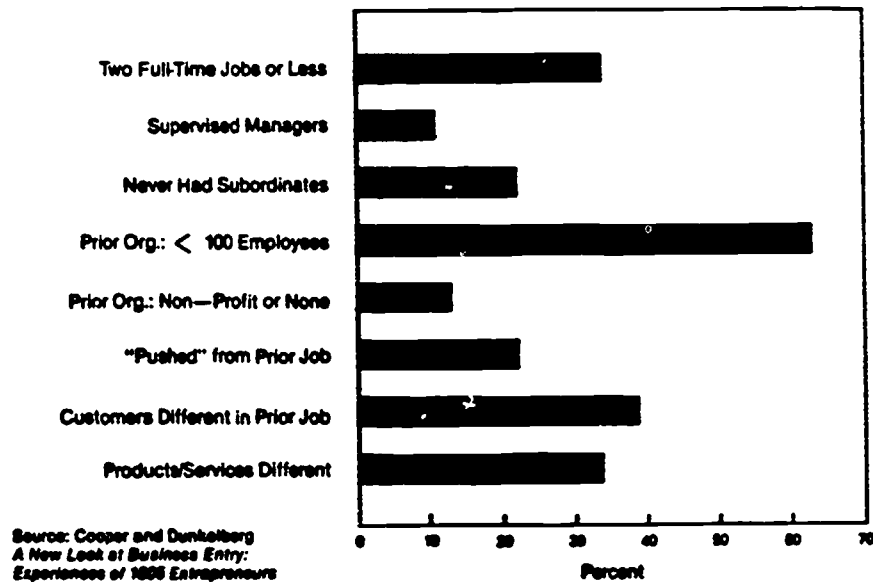
less likely to start their own businesses. These experiences may involve their families, or take place in school or on the job" (Cooper 1983, p. 2).

Figures 4 and 5 visually present the highlights of the research conducted on the personal characteristics of new business starters and the career patterns of business starters. This information highlights the fact that entrepreneurship education must be a lifelong process and that entrepreneurs do have a need for training and education. Although people of all ages start businesses, many are in the age range of about 25 to 40. Also it is important to note that 40 percent have only a high school degree or less (Cooper 1982).



SOURCE: Cooper (1982, p. 2). Reprinted by permission of NFIB Research and Education Foundation.

Figure 4. Personal characteristics of new business starters



SOURCE: Cooper (1982, p. 4). Reprinted by permission of NFIB Research and Education Foundation.

Figure 5. Career patterns of business starters: prior experiences

The 1983 President's report on small business contains important information about small businesses' potential training and education needs. Kelley summarized these needs as follows:

- "Small businesses often suffer from a lack of resources.
- Employees usually are not specialists; each does several jobs and gains far broader experience than most employees of large corporations.
- Personnel and training departments rarely exist.
- Priorities are based on short-term needs and not on long-term planning. The owners manage their businesses reactively rather than proactively.
- Employees remain with small businesses for longer periods of time and for lower salaries if they believe they are growing with the job.
- Poor management is the number one reason small businesses fail.
- Successful small business owners are active in community service and professional organizations.

A small business's first years focus on survival; in their first year 50 percent of all new businesses fail, and by the 10th year, between 80 and 90 percent have failed. The fourth year seems to be a milestone in establishing the business. Visibility, name recognition, and finances usually are secure by then, and the business can focus on maintenance and growth" (Kelley 1984, pp. 36-37).

These data have far-reaching implications for entrepreneurial education. If educators are to serve this major portion of the current and future employment sector, they must devise some new strategies (Kelley 1984).

Assisting Entrepreneurs

Unlike large corporations, smaller businesses and new entrepreneurs generally tend to remain where they live. The key issue for them is whether or not the local environment is conducive to making a decision to expand or start up.

Vesper (1983) summarizes the following forces that influence the decision to start a business:

- Pushes. Pushes are negative aspects of present employment that cause individuals to look for something else, either another job or a start up. An individual may be discontent with current employment or even out of work.
- Pulls. Pulls take different forms. Entrepreneurship may be viewed as a path for pursuit of occupational happiness--the lure of independence, and the chance to pursue an idea, seize an apparent market opportunity, or be fully rewarded for performance.
- Barriers. Characteristics of the individual and the environment that inhibit start-up can range from the lack of a viable idea or technical skills to the lack of seed capital and capable local labor.
- Environmental Helps. Characteristics of the local environment that support start-ups are as follows:

- Market contacts
- Local incubator companies
- Capable local labor force
- Technical education and support
- Supplier assistance and credit
- Local venture capitalists
- Venture-savvy bankers
- Capable local advisors
- Entrepreneurial education
- Successful role models

In addition to these locational factors, other studies include the presence of support services such as education and training, research, and a

supportive fiscal and regulatory climate as important forces for an entrepreneurial economy.

New economic activity derives most often from an economic function. New enterprises often form to seize a local market opportunity--providing a new product or serving as a local supplier to a large company, public or non-profit institution. It is safe to say that the businesses that are doing well in a particular community give the best indication of its competitive advantage (ibid.).

Finally, it is appropriate to explore two potential support systems that can make a difference in the success of small business and the economic development of any given community, region, or state: incubators and entrepreneurship education.

Incubators Shelter New Entrepreneurs

What may be one of the most accessible and, potentially, the most effective local economic development strategies is also very risky. Studies show that small businesses are the least stable employers. According to most analysts, approximately half of all small businesses fail within their first year or at least go out of business.

The high death rate among small businesses has many explanations. The two most often targeted areas are undercapitalization and poor management. For a number of years, community groups and local governments have addressed these problems with financing programs, subsidized development costs, tax abatements, business assistance, and so on. But these services have not always been as effective as they hoped.

Cost and accessibility of these services are the main problems. Often housed in one or more central locations in a city or community, people running businesses outside the central areas found it difficult to use them regularly. In addition, fees for some of these services were often more than a fledgling entrepreneur could afford.

The concept of business incubators is a natural outgrowth of these trends and practices. They are packaged and focused differently to make a greater impact on the development of small businesses in a particular community. Business incubators are designed to meet the needs of entrepreneurs--coordinating services and financial resources and reducing the costs and risks that all new businesses face.

The hope is that concentrating on a few businesses will increase their chances of survival. By having services on-site, they should be more effective at serving small business needs. By offering rent and services below market rates, undercapitalized firms may make their dollars stretch farther. By putting a number of small businesses in one building, they can benefit from one another's presence, both by reducing the costs of common services and sharing their ideas and experiences. With these advantages the risks to

lenders and investors are reduced, allowing small businesses to obtain the capital they need to weather the first few years in business.

The concept can be adapted to meet the purposes of a community by using local resources. Community groups interested in job creation for unemployed residents may focus on nurturing manufacturing firms with lower costs and some minimal local hiring requirements. Cities interested in revitalization of commercial areas may undertake a retail incubator. Educational agencies may want to make use of their faculty, students, and research facilities to bring about new products and technologies and to provide practical experiences for their students. Communities with abandoned plants may find a productive use for these highly visible and discouraging properties. Public schools that are standing partly empty may wish to support their community and use adult education funds to develop new business in the community and jobs for their students. Incubators truly serve many purposes.

Business incubators seem to have a certain appeal to many potential public, nonprofit, and private developers. This concept has attracted many because business incubators are relatively small, yet they hold much promise. They are also attractive to the public, the media, funders, and investors. They seem rather logical and obvious, like any good idea once it is clearly articulated. In any event, the number of these facilities has leaped in the past few years, and curiosity about them soars. From about 80 of these incubators known in the United States in 1985, the SBA predicts the development of thousands of incubators in the next 5 years.

Benefits of Small Business Incubators

An incubator is a facility with adaptable space, which small businesses can lease at a reduced rate and on flexible terms. Typically, support services are available on an as-needed basis. Financial assistance or management and technical assistance services may also be offered. Most incubators limit the amount of time a tenant may occupy space in the facility; this period usually ranges from 2 to 5 years. Some local economic development agencies offer space in nearby industrial parks to businesses that have "graduated" from the small business incubator.

An incubator can reduce the obstacles to new business formation and expansion by the following:

- Offering below-market-rate space on flexible terms
- Eliminating building maintenance responsibilities
- Allowing tenants to share equipment and services that would be otherwise unavailable or unaffordable
- Increasing entrepreneurs' awareness of and access to various types of financial and technical assistance that may be available

- Providing an environment in which small businesses are not alone, thereby reducing the anxiety of starting a new business as well as offering incubator tenants an opportunity to give each other business
- Increasing the business tenants' visibility

The community also benefits from establishment of a small business incubator by the following:

- Transformation of under-utilized property into a center of productivity
- Creation of opportunities for public-private partnerships
- Diversification of the local economic base
- Enhancement of the locality's image as a center of innovation and entrepreneurship
- Revitalization of the immediate surrounding area
- Increased employment opportunities (Small Business Incubators Resource Summary 1984, pp. 1-2).

Essential Dimensions of Incubators

According to the authors of Starting a Small Business Incubator: A Handbook for Sponsors and Developers, incubators can differ in many ways, but five essential dimensions of development and operation are generally found among existing incubator facilities: (1) sponsor and development objective(s); (2) building type and location; (3) tenant composition (target market); (4) rent, fee, and graduation policies; (5) range of support services. The document describes these dimensions as follows.

- Sponsor and objectives. Incubator facilities have been started and operated by cities, counties, regional authorities, large corporations, small companies, universities, community colleges, area vocational centers, chambers of commerce, not-for-profit development groups, and private real estate developers. Motivations for involvement in incubator projects include one or more of the following: profit, utilization of vacant buildings, job creation, urban redevelopment, marketing outlets for sponsor products and services, general economic and business development, or some combination. Although many of these common objectives are complementary, they are also potentially in conflict, and incubator developers need to keep their goals and priorities in mind at all times.
- Building type and location. Incubators have been located in depressed urban industrial environments, retail shopping strips, near universities, on community college and vocational center campuses, in

industrial and science parks, and in small towns far removed from metropolitan areas. Most operating incubators are in older, renovated manufacturing or warehouse structures, although some new buildings have been constructed to house incubator facilities. These tend to be private-sector owned and operated. The physical layout, architectural and rehabilitation cost, subdivision of space and utilities, and furnishing of common areas and individual spaces all affect the cost of the project and the rents and fees that tenants have to pay.

- Tenant composition (target market). Incubator sponsors often designed the facility to attract tenants in particular industries or with well-defined physical needs that the building provides (e.g., wet laboratory space or a railroad spur). One popular perception is that incubators are for high technology start-ups, and a large number are. Experience has shown that most private sector incubator sponsors (e.g., Control Data, Technology Centers, Inc.) design projects specifically for technology-based ventures to capitalize on the potentially high growth and returns within high-tech industries. Educational agency-connected incubators also have adopted this orientation to take advantage of potential synergies between firms and the institutions' educational, training, and research capabilities; to provide entrepreneurial opportunities for faculty, staff, and students, and to provide training and job opportunities for students.

However, many incubators have achieved spectacular results with low or no-tech occupants in manufacturing, assembly, service, wholesale, and retail industries. Although most facilities use some leasing criteria and screen potential tenants, some have succeeded by initially renting to anyone who was interested. This demonstrates the potential danger of overmanaging an incubator project when local economic and entrepreneurial environments make such control inappropriate.

Although the incubator concept is aimed at new, start-up businesses, several project directors have found it advantageous to include established firms in their tenant mix. These companies can provide more reliable cash flow, afford higher rents, and stabilize the facility during the potentially lengthy lease-up period.

- Rent, fee, and graduation policies. Incubator leases may be uniformly structured with prespecified rents or handled case-by-case according to the individual firm's circumstances and needs. It is not uncommon for an incubator director to defer or restructure rent obligations due to unexpected business downturns or upswings. Some sponsors may accept an equity position in the tenant firm as part of the tenancy agreement.

Base rent in an incubator may or may not include utilities and a common core of services with unlimited access. Many services and business machines are provided on a fee basis so that firms pay for only what they use. Incubator sponsors often price their services at or below cost in order to minimize tenants' overhead. Some

project directors have developed sophisticated accounting procedures for establishing service fees and options and negotiating fees.

Of course, the rent and service price levels set are influenced by the cost of acquiring, renovating, and operating the facility and the sponsor's expected return on investment. Public sector sponsors may wish to subsidize the facility's operating costs after determining that the marginal loss on rent or services is less than the benefit of reducing tenants' operating expenses, although this is appropriately a public policy question. Incubator sponsors should pay close attention to the decision to set fees at, below, or above the cost of providing space and services. The result directly affects the fortunes of the tenant businesses and the achievement of the project's long-term goals

- Range of support services provided. There is a nearly infinite number of service combinations that sponsors can offer tenants in incubator buildings. Most new and small firms do not generate a sufficient volume of business to justify full-time administrative help, and such needs can be provided centrally by the sponsor. These normally include typing, stenographic, copying, mailing, shipping, phone answering, and reception services. Conference rooms, business and technical libraries, credit reports, insurance, and joint purchasing arrangements are amenities also provided by incubator facilities. Some incubator managers may contract or arrange for professional services, consultants, or other business development resources through private and public sector organizations or programs. It is important for the incubator director to have working relationships with public officials involved in business development so that tenants can be referred quickly to appropriate assistance sources. (U.S. Small Business Administration, Region V, and the Office of Private Sector Initiatives, and the Illinois Department of Commerce and Community Affairs 1984, pp. 5-7)

The opportunity for education to assist in providing these services is most evident. Cooperative vocational education students can be placed either with the administration or with the small business owner. Customized training can be provided together with management and technical assistance. The potential for serving as a clearinghouse is also available for creative vocational administration. The directors of many incubators would welcome a viable working partnership.

The SBA's Office of Private Sector Initiatives provides the following services for incubators:

- A national clearinghouse of information on small business incubators
- A national database on incubator projects around the country (in progress)
- Specialized conferences and educational programs on developing and managing successful incubator facilities, designed to reach an

audience of small businesses, potential incubator sponsors or investors, economic development professionals, and state and local officials

- Technical assistance to communities or organizations sponsoring small business incubator projects
- A promotional campaign to increase corporate awareness of the role incubators can play in a strategy to support local community and economic development
- Speakers or speaker referrals for small business and economic development conferences held by other organizations interested in incubators
- Publications to promote and share information on small business incubators, including the following:
 - Incubator Times, a newsletter designed to promote and share information on small business incubator initiatives nationwide
 - "Resource Summary on Small Business Incubators." Includes major incubator studies, an incubator overview, and other contact organizations
 - Starting a Small Business Incubator: A Handbook for Sponsors and Developers

The SBA's Office of Advocacy/State & Local Affairs provides up-to-date information on state and legislative initiatives to promote small business incubators.

The SBA Financial and Management Assistance Programs provide a variety of assistance programs available to small business incubator tenants, including SCORE/ACE (Service Corps of Retired Executives and Active Corps of Executives), Small Business Institute (SBI); Small Business Development Centers (SBDC), and various small business loan programs. For information on these programs contact your local SBA District Office and request "Your Business and SBA," OPC Pamphlet No. 2.

The current level of interest in the incubator concept is intense, as evidenced by the increasing frequency of reports of new projects. Those seeking further information on local experiences with incubators and development of incubator facilities are directed to the publications and information sources in the reference section of this publication. Also included are selected references to reports and articles on small business formation and development and contact information for organizations and individuals that monitor incubator activity.

Entrepreneurship Education: "The Seed
of Economic Development"

Education for this nation's entrepreneurs is needed. Small business men and women confront a myriad of difficulties, and they often feel all alone against the world, single-handedly fending off bureaucrats and competitors. They need specialized information about their business as well as general knowledge about why and how small businesses succeed and fail. What they need is to be a part of an entrepreneurship education network to increase their visibility. Small business leaders are busy reacting to events that are largely beyond their control. They are so busy that they are largely invisible to the general American public.

Americans have been brought up to think big when they think business, but many of the true heroes of American business today are the buccaneers in small business. The small manufacturers and producers of business services are especially vital as they translate the new technologies into consumer products and employment opportunities. Working largely on their own in an incredibly fast-moving and worldwide business situation, they have to match wits on problems, technologies and opportunities against other individuals around the world. This is no place for the bored or the lazy.

But how many Americans know either what small business owners are doing or how important it is to the nation that they succeed? Particularly, how many students in high school know about opportunities for adventure, independence, challenge, bankruptcy, and good income open to the small entrepreneur? Do education institutions emphasize education only for jobs in big business and the professions? They should at least consider bringing the successful small business man and woman to the schools to tell their stories and their visions.

Historically, a variety of organizations have developed programs to prepare people for new venture creation. But there have been limited opportunities to build networks to deliver education and training appropriate for the different types of entrepreneurs. What is needed is a realistic, coordinated plan that would bring together programs that affect entrepreneurial education to one degree or another. The result would be coordination among agencies that now frequently work at cross-purposes and greater efficiency in the expenditure of public funds. A plan could provide the framework under which a range of public and private sector agencies--commerce, industry, labor, government, and education at all levels--could work together toward economic development goals that they otherwise could not achieve alone (Illinois Department of Commerce and Community Affairs and U.S. Small Business Administration 1984).

Over 20 states are in the process of creating state entrepreneurship education networks in affiliation with the National Entrepreneurship Education Network at the National Center for Research in Vocational Education. Entrepreneurship education, as envisioned by the members of the National Entrepreneurial Education Network, is a comprehensive program designed to serve the diverse needs of a broad population base. The Lifelong Entrepreneurship Education Model that was developed at the National Center for

Research in Vocational Education has been adopted by the state entrepreneurship education networks. Following are the 5 stages in the entrepreneurship education model (figure 6):

Stage 1-- Entrepreneurship career awareness, basic skills, and economic literacy

Stage 2-- Entrepreneurship interest and competency awareness

Stage 3-- Creative application of occupational skills and entrepreneurship competencies

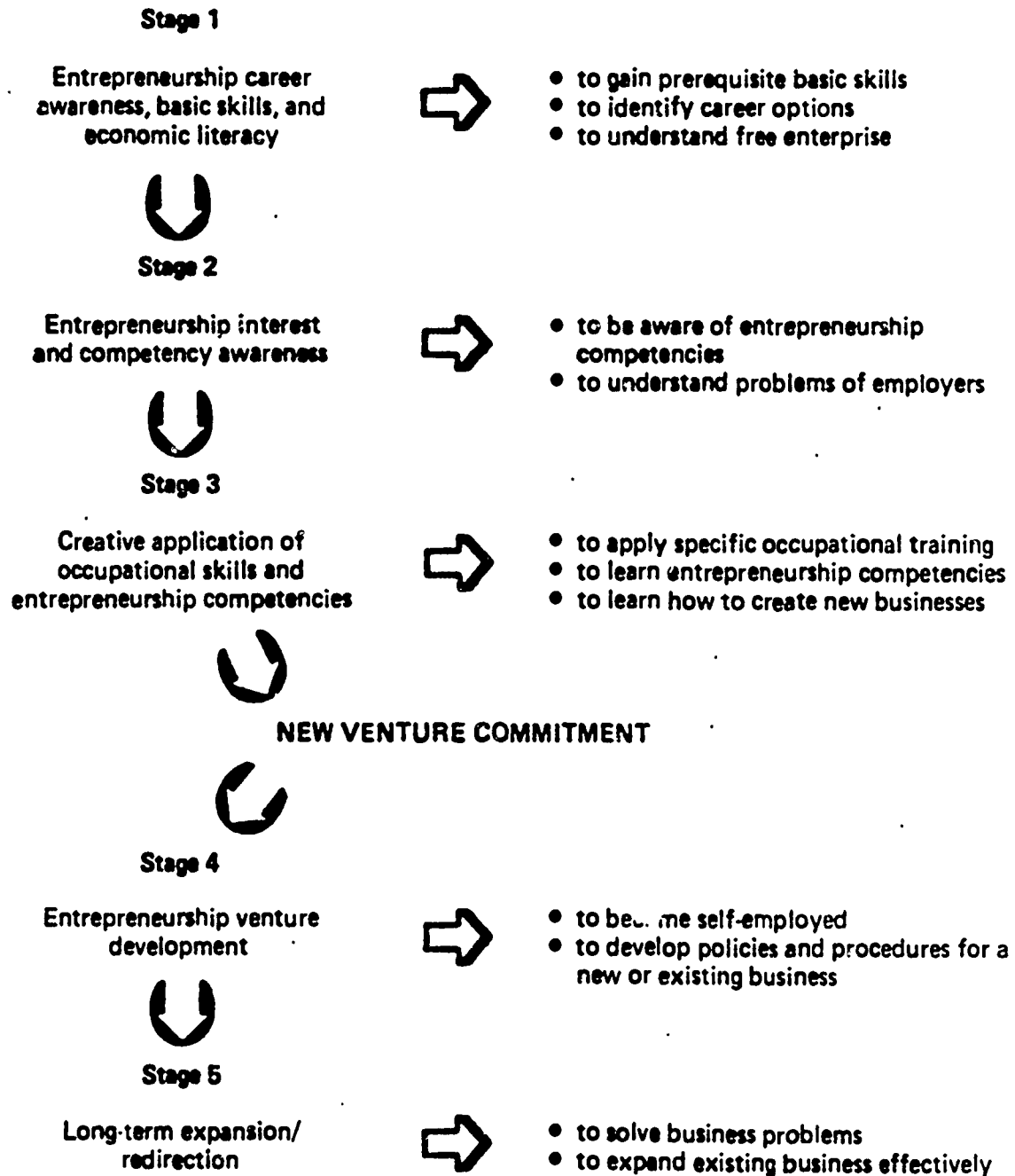
Stage 4-- Entrepreneurship venture development

Stage 5-- Long-term expansion/redirection

The model is designed to illustrate that entrepreneurship is developed over an extended period of an entrepreneur's life and does not take place in any one setting or at one specific time. The model defines the difference one would expect to see in varied types of entrepreneurial programs. Another strength of the model is that it also indicates the importance of defining a number of important needs and learning processes before infusing entrepreneurship into any education program. It demonstrates the number of different outcomes from different types of entrepreneurship education, and it sets the stage for cooperation between all types of organizations that provide education and training for small business development.

EDUCATION AND TRAINING STAGES

DEVELOPMENTAL NEEDS OF ENTREPRENEURS



SOURCE: Ross et al. (1984, p. 6).

Figure 6. A framework for lifelong entrepreneurship education

Putting the Model to Work

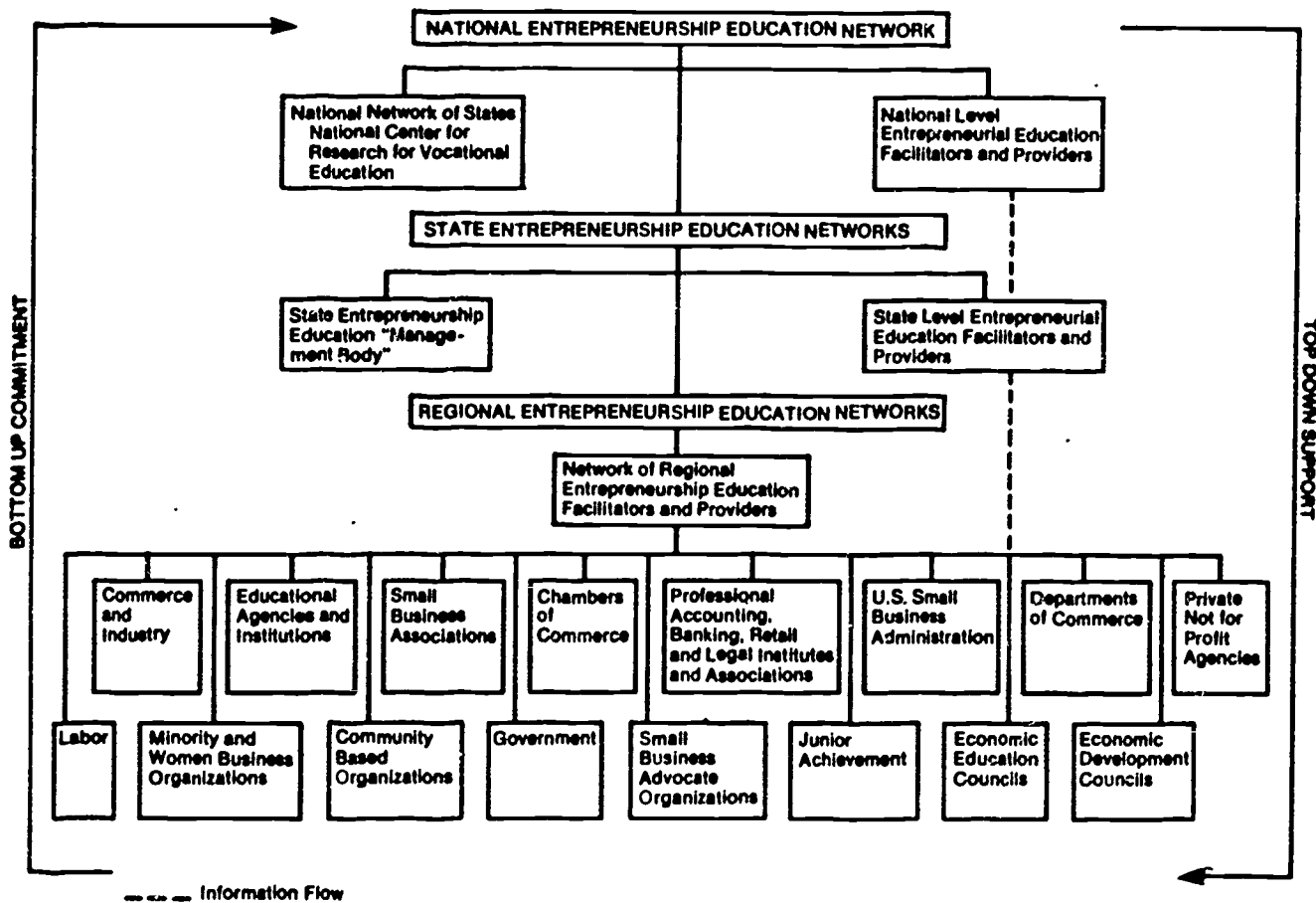
Figure 7 contains a proposed national management model for entrepreneurship education that is based on the need for creating partnerships through networking at the local, regional, state, and national levels. The process-oriented model is driven by top-down support and bottom-up commitment concepts. This management model, if adopted, would create an effective communications tool for building private and public sector partnerships through networking. It would also help to serve as a means of expanding the existing entrepreneurship education structure.

To assist in the creation of entrepreneurship education at local, regional, and state levels, a strategic plan has been developed that can be used to facilitate program development. This plan for marketing entrepreneurship education is illustrated in figure 8.

This strategic plan is very similar to the system used by leading corporations and is increasingly being used by public agencies to facilitate long-range planning and implementation. It incorporates both the management model for economic development (figure 1) and the proposed national management model for entrepreneurship education (figure 7) into a coherent and comprehensive plan for the delivery of entrepreneurship education at the local, regional, state, and national levels. The key element of the strategic plan is to build the leadership commitment and support that is so essential to developing partnerships for entrepreneurship education.

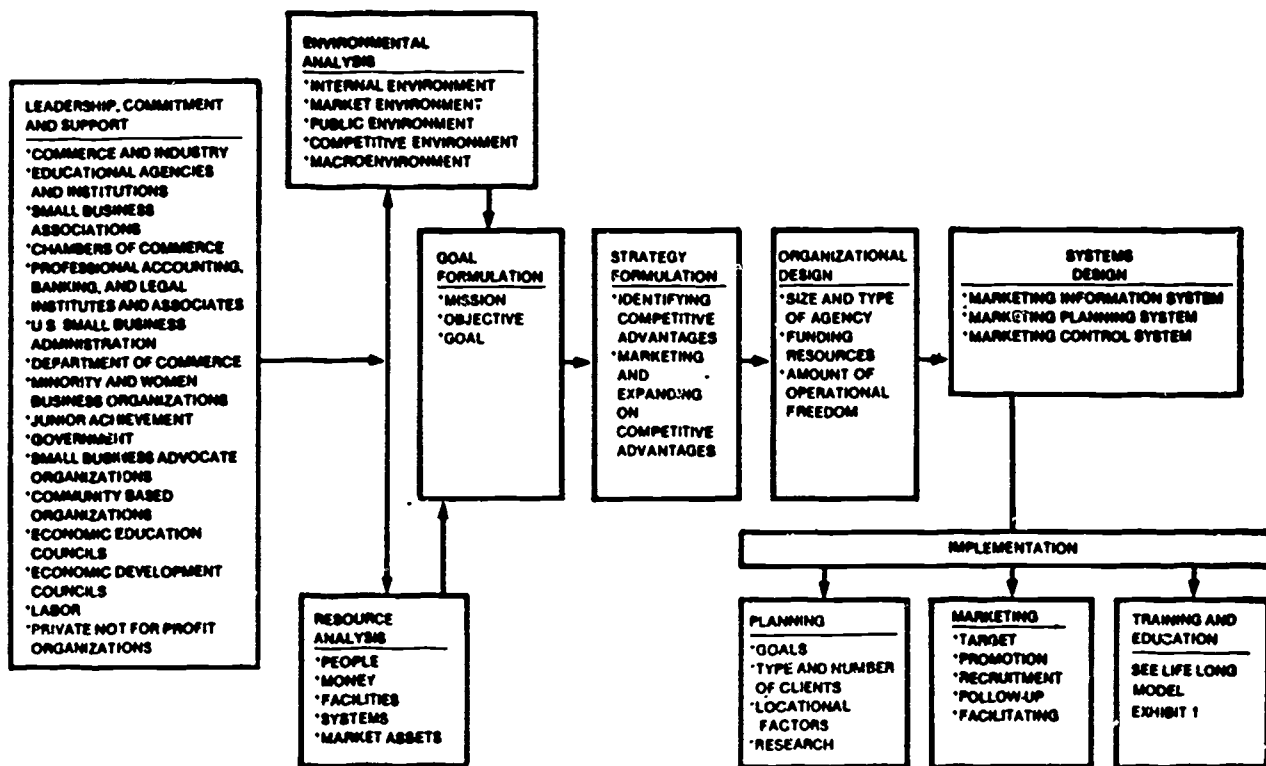
A number of states are now in the process of creating state action plans for entrepreneurship education. Listed below are the first year's accomplishments of the State of Illinois Entrepreneurship Education Task Force.

- Identified and studied existing entrepreneurship education programs throughout the state and nation
- Identified and studied existing organizations (public and private) involved in the delivery of programs that prepare and upgrade the competencies of entrepreneurs
- Served as an advisory body for existing entrepreneurship education activities
- Identified what was needed (i.e., resources, programs, cooperative relationships) to achieve the mission of the task force
- Served as a catalyst for identifying and creating a permanent management body to promote and implement entrepreneurship education in the state of Illinois
- Provided initial leadership to help transfer the responsibilities to the permanent management body for entrepreneurship education
- Developed "An Action Plan for Entrepreneurship Education in Illinois"



SOURCE: Harris (1985, p.25)

Figure 7. Proposed national management model for entrepreneurial education



SOURCE: Harris (1985, p.26)

Figure 8. A strategic plan for the marketing of entrepreneurial education

The task force made four recommendations that, if implemented, would serve as viable long-term strategies for implementing entrepreneurship education. Briefly, the task force recommended that an entrepreneurship education management body be organized and headed by a facilitator. The management body would develop a strategic plan and provide the resources necessary to carry out that plan. A copy of the document entitled "An Action Plan for Entrepreneurship Education in Illinois" is presented in chapter 4. It discusses the 4 recommendations in more detail. This state action plan clearly illustrates that entrepreneurship education is a viable economic development strategy.

An Investment in Entrepreneurship Education

The Illinois Office of Education Department of Adult, Vocational and Technical Education has funded a project to establish inservice and preservice teacher education programs in entrepreneurship education. This entrepreneurship education research that was conducted at Northern Illinois University should enjoy substantial support from a wide array of agencies. Listed below are some of the procedures that were followed in the first year:

- Conduct training programs in entrepreneurship education for adults.
- Develop criteria for identifying exemplary entrepreneurship teacher education programs.
- Conduct inservice and preservice entrepreneurship education teacher education programs to train SBA certified counselors.
- Conduct a preservice and inservice course entitled "Instructional Materials and Strategies in Entrepreneurship Education."
- Prepare resource listing ongoing entrepreneurship education programs in the state of Illinois.
- Provide technical assistance for preparing entrepreneurship education programs to become exemplary demonstration sites.

During 1985 and 1986, the research and development activities will be expanded at Northern Illinois University.

The Challenge in Perspective

There is little question that small business currently plays a significant role in the economy of the United States. Small business will continue to help restore competitiveness by helping to improve technology utilization, management practices, labor relations, education and training, and capital investment.

In 1840, Alexis de Tocqueville provided one of the more interesting observations ever made about the American economy. He wrote: ". . . what most astonished me in the United States is not so much the marvelous grandeur of some undertakings as the innumerable multitude of small ones" (de Tocqueville (1972, p. 157). Should an equally observant Frenchman visit this land in the year 2040, he would make a similar observation.

The ability of economic development decision makers to capture the "entrepreneurial spirit" may well provide the answer. The unique proven advantages of small business (such as creating 80 percent of the new jobs, being 2.4 times more productive per employee, being 24 times more productive per dollar of research and development expenditures, flexibility, willingness to take risks, and being responsive to the needs of employees and communities they are serving) must be fostered through effective private and public sector partnerships. There is no single magic solution that will end the economic problems, but that should come as no surprise. The strategies that are needed, both private and public, are complex and difficult. Success will require imagination, cooperation and hard work. However, the contributions of small business will continue to be significant. Any economic development model in the decades ahead must be sensitive to and responsive to the contributions and barriers of small business and entrepreneurship.

The Role of Entrepreneurship Education in the Future

An exciting and challenging role for entrepreneurship education is emerging in the final decades of the 20th century as more and more Americans are deciding that only through ventures of their own can they achieve the kind and quality of life they envision for themselves and their families. It is no longer news that small and new businesses provided most of the 20 million new jobs generated between 1970 and 1980, a trend that has persisted throughout the eighties despite the recent recession period. Small businesses have been a major source of jobs for a wide cross section of workers: the young, the old, part-time workers, and the cyclically unemployed. As the American economy goes through structural changes, small firms are exhibiting the imagination and flexibility needed to adapt to these changes and are providing jobs for many workers who are finding themselves displaced. Likewise, education during the 1980s is being called upon to play a key role in the promotion of entrepreneurship education as a viable economic development strategy.

Because the government in the most recent decades has tended to view Americans as employees and consumers rather than as entrepreneurs and producers, the climate for small independent ventures has deteriorated.

The owners of America's small businesses are learning that they must participate more in the formulation of government policies and make their views known, not only to benefit small business but to benefit the nation as a whole. The recommendation emanating from state and national conferences on small business have encouraged the development of entrepreneurship education programs. These programs should entail initial education, continuing management assistance, and some means to update specific competencies. The

small business delegations also called for the development of curricula on the American economy in primary, secondary, and postsecondary schools. These should familiarize young Americans with basic economic, business, and entrepreneurial principles. Such recommendations envision a partnership between and among education, commerce, industry, labor, government, and community-based agencies. They should foster and strengthen regional economic and human resources that will result in improved economic conditions.

The frontiers are wide open for vision and hard work in entrepreneurship education. Whether America fields a world-class team of small business leaders is of no small concern to all of us. These leaders, more than the leaders of the older businesses, will determine the standard of living that we and our children shall enjoy.

Hopefully, entrepreneurship education is not just another new educational program that disappears in a few years. Entrepreneurship education can make major contributions to economic development if done effectively and efficiently. The U.S. Department of Education and the National Center for Research in Vocational Education have provided the initial entrepreneurship education leadership. Time has now come for local, regional, and state agencies to move forward.

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CHAPTER 2

ENTREPRENEURSHIP ECONOMIC DEVELOPMENT AND EDUCATION

ABOUT THE AUTHOR

Roger J. Vaughan is an economic consultant who specializes in state and local development issues. He received his B.A. from Oxford University and his Ph.D. in Economics from the University of Chicago. Dr. Vaughan has served as an economist with the Rand Corporation and was an assistant vice president of Citibank in New York City. More recently, he served as Deputy Director of New York State's Office of Development Planning under Governor Carey. He is currently Senior Fellow at the Gallatin Institute and head of his own consulting firm. Dr. Vaughan is the author of over 100 books and papers on urban development, stabilization policy, public works investment, development finance, and employment policy.

This paper was originally prepared for the New York State Entrepreneurship Task Force (member of the National Entrepreneurship Education Task Force) and the Office of Occupational and Continuing Education, New York Education Department.

Since 1970, New York State's economy has experienced a dramatic transition. The state has led the nation in converting from an economy based on the processing of materials to an economy based on the manipulation and management of information. The state has adapted to a tenfold increase in energy prices, to abrupt changes in the inflation rate, to dramatic shifts in world trade patterns, and to the widespread application of the microchip.

This complex process of adaption led to periods when population and employment declined and when many communities suffered the consequences of major plant closings. By most traditional economic indicators--employment, income, or output--the state's economic present and future looked bleak. But the aggregate numbers concealed a vital source of strength in the state--its entrepreneurs. In large corporations and in their own enterprises, entrepreneurs have been willing to take risks, to innovate, to introduce new products and new ways of doing things, and to explore new markets. They have proved as important in the emergence of the information-based economy as they were to the emergence of the mass production economy earlier in this century.

The importance of the entrepreneur and the underlying vitality of New York's economy have often been overlooked. Traditional economic theory has emphasized complex mathematical models rather than a realistic representation of the process of economic development. As a result, policies based upon those models tend to emphasize industrial recruitment rather than entrepreneurship. This paper describes the critical role played by entrepreneurs in creating new economic opportunities and outlines ways in which state education policy can be used to promote a more entrepreneurial economy.

Entrepreneurship and Economic Development

The entrepreneur is the driving force behind economic development, yet is ignored by most economists when they analyze the economy and make policy recommendations. Economists often focus on macroeconomic statistics such as gross national product (GNP) and total employment and overlook the extraordinary structural changes through which the economy passes and the dynamic way that the economy adapts to changes in the economic environment. Looking behind these statistical aggregates reveals a healthy and flexible economy propelled through difficult times by the imagination and risk taking of its entrepreneurs.

Job Creation

In recent years, national employment has expanded, on average, by 2 million jobs annually. This growth was not simply the result of the creation of 2 million new jobs, but of the loss of 4 million existing jobs offset by the creation of 6 million new ones. During an average year, 2 million people lost their jobs when the firms that employed them cut their payrolls, and another 2 million jobs were lost in firms that went out of business. But offsetting these job losses were 3 million jobs created in brand new companies and additional hiring of 3 million by existing firms--mostly by highly entrepreneurial small businesses. Existing and new small businesses--those enterprises employing fewer than 20 people--have been responsible for more than half of all new jobs. In contrast, few jobs in any state or region--at most 3 or 4 percent--were created as the result of businesses relocating. Small businesses, which comprise the most volatile sector of the economy, are much more likely than large firms to experience a very large percentage of change in their work force. While they are major creators of jobs, these jobs may be less stable.

As the pace of economic change has accelerated over the past decade, the importance of new businesses in the job creation process has grown. The annual rate of business formation has increased from about 200,000 in 1970 to over 600,000 today. There has been a corresponding increase in the rate of business failures--new businesses are more vulnerable than established businesses since entrepreneurs are experimenting with new goods, new methods of production, and new markets. However, a high business failure rate is not a sign of economic malaise, nor is a low rate a healthy sign. The failure rate moves in step with the start-up rate. In 1975 at the depths of a very deep recession, the business failure rate in New York City was below the rate in booming Houston. Growing areas grow not because they have a low failure rate but because the rate of job creation in surviving firms is high.

Between 1972 and 1982, the United States generated nearly 20 million new jobs--a 20 percent increase in employment. Employment in the much-vaunted Japanese economy increased by only 12 percent, in Germany by 4 percent, and in Britain and France almost not at all. Despite conventional wisdom, the past decade has not been a period of economic stagnation but one of far-reaching

change. Although labor productivity did not grow as rapidly in the United States as in Europe, this reflected the large number of new labor force entrants who needed on-the-job experience or formal training rather than some deep-seated economic malaise.

Labor Force Changes

In addition to this dynamic process of job creation, there were extensive changes among existing jobs, reflecting the changing skills of the work force and the changing demands for labor as new products were introduced and new technologies employed. An entrepreneurial economy requires a highly flexible work force. Each year about 15 million workers experience a spell of unemployment, and another 10 million change jobs. About 4 million people will retire. The labor force is in a continual state of flux, which is not captured in the simple statistic of total employment.

More people are becoming entrepreneurs. Today one person in six is either self-employed or heads a business, and nearly one new job in four is either the head of a new business or self-employment--more than double the share 10 years ago. By comparison, employment in the 1,000 largest corporations listed by Fortune magazine, accounting for about 40 percent of all current jobs, actually declined in the last decade.

Even those employees who are not entrepreneurs will have to learn to behave more entrepreneurially because the nature of jobs is changing. A worker is twice as likely to have to learn a new skill or a new occupation in midcareer today than 20 years ago and the complexity of skills needed in some industries has increased dramatically.

Financial Sector

Financial data also point to the importance of small and new businesses. The dismal track record of the share prices of the nation's large manufacturing corporations has depressed the overall stock indexes but is not indicative of the overall financial performance of the nation's entrepreneurs.

The inflation-adjusted value of shares traded on the New York Stock Exchange increased only 9 percent in the decade beginning in 1973. But the New York Stock Exchange index measures what is happening to America's larger and most-traded firms, not what is happening to new and small businesses--the entrepreneurial economy. Their story was quite different.

An index compiled by Venture Economics magazine of the stock value of 100 new corporations rose from 100 in 1973 to 530 today, a highly respectable 7 percent annual growth rate after adjustments for inflation. Venture capital corporations averaged a 25 percent rate of return on investments during the late 1970s and early 1980s. In the midst of the 1982 recession, INC magazine had no difficulty finding 100 companies with sales growth rates that had exceeded 60 percent annually for the previous 5 years.

Innovation and Invention

Individuals--working alone or in small businesses--have been responsible for more than half of the most important inventions of this century, from the automatic transmission to the desktop computer. Small businesses provide an environment that many find more flexible and rewarding than larger corporations. Small businesses are also responsible for a larger share of innovations (products or services that translate an invention into a viable commercial product) than their share of total sales or employment. By one estimate, firms with fewer than 100 employees produce 4 times as many innovations per dollar spent on research and development as medium sized-firms (101 to 999 employees) and 24 times as many as firms employing over 1,000 people.

Adaptation

The American economy in the last decade accommodated a massive increase in the labor force and a burst of new technologies, as well as adapting to the energy crisis and the emergence of unprecedented international trade competition. It has achieved this adaptation more effectively than any other economy because it is richly endowed with entrepreneurs. And although some industries have shrunk and many workers have lost their jobs in the process, the economy as a whole has been enriched by the creation of new opportunities.

In 1970, a 1 percent increase in GNP was associated with a 1 percent increase in energy consumption. Today, that ratio has been cut by two-thirds--an adjustment that has required countless new devices and innovations in ways of producing goods and services, innovations brought to the market by entrepreneurs.

Although the U.S. economy has been portrayed as an ailing giant in recent years, it has actually been dynamic and responsive. The dramatic increase in entrepreneurial activity is creating new opportunities for sales and investment, as well as employment.

The New York Economy

The entrepreneur has been as important--and as hidden--in the transformation of the New York economy as in the national economy. The Northeast--and particularly New York and Massachusetts--is leading the nation in the shift toward a service and information-based economy. Today, less than 22 percent of the state's work force are employed in manufacturing or construction, compared with 24 percent in California and 25 percent nationwide.

The New York City economy, originally built around trade and small-scale manufacturing, now has more jobs in finance, insurance, and real estate than in manufacturing. Legal services have become its largest export industry--surpassing apparel in 1982.

The importance of entrepreneurs in helping an economy change can be judged from a comparison of job creation patterns among regions. A Brookings Institution study found that, between 1978 and 1980, firms employing less than 20 people were responsible for 80 percent of the new jobs in the Northeast and only 40 percent in the West. In New York, small firms have provided jobs for those whose positions were lost in older, larger firms.

Economic transition is extraordinarily painful to some. Skills patiently acquired over many years have been made obsolete overnight. Communities have shrunk as their major employers close down. Service firms have failed as demand shrinks. But there is another side to these statistics. The Northeast's increase of 140,000 jobs between 1970 and 1983 was the net result of the loss of over 460,000 manufacturing jobs and the creation of nearly 600,000 jobs in other sectors. Although state data are not available, it seems that new and smaller enterprises played the same dominant role in creating jobs in New York as at the national level. New York is second only to California with respect to the number of companies listed on INC magazine's list of the 500 fastest growing firms.

Just as at the beginning of this century, New York has been propelled through a painful transition period by entrepreneurs. In recent years, the public has come to identify entrepreneurship with high technology. Yet 90 percent of entrepreneurs are in activities that are not based on new technologies--from Federal Express to mobile cookie stands. For example, New York City's most rapidly growing companies include the following:

- A firm renting chauffeured limousines
- An advertising firm that successfully grew in the city's most competitive industry
- A manufacturer of traditional telecommunications equipment founded in 1974 with 1 employee that today employs over 100 people
- A maker of medical equipment that, although nearly 100 years old, expanded sales by 1,200 percent between 1977 and 1981
- A software consultant to the finance industry that achieved sales of \$2.4 million only 4 years after being organized

Most analysts believe the very high rate of unemployment in New York in the mid-1970s was not only the result of the out-migration of major corporations but also the result of a slowdown in entrepreneurial activity reflected in the low business failure rate in New York State. With too few entrepreneurs, the state responded slowly to the changing economic environment. The emergence of the information-based economy presented new entrepreneurial opportunities, rekindling economic development.

Small Business and Economic Change

Economic development is the process of innovation and adaption. To prosper, states must not resist change but must adjust rapidly and efficiently. They can do this by fostering a strong, entrepreneurial small business sector.

New York's economic environment is continually changing. In contrast to the orderly and predictable world of theoretical economics, the real world is in a constant state of flux, changing in many ways that cannot be measured, explained, or anticipated. A war in the Middle East produced an oil embargo, which led to a 55-mile-an-hour speed limit and a booming business in CB radios and radar detectors. The tinkering of two college dropouts who were convinced that there was a market for small computers launched a multimillion-dollar industry that has directly altered the lives of millions of people. An importer with a stock of unsold blue jeans attached the name of a famous person on the back pocket and the "designer-jeans" industry was born.

Change is threatening. It devalues some resources and assets: the resale value of gas-guzzlers fell as the price of gasoline rose; the computer-driven robot rendered the skills of many welders redundant. Mechanical calculators and slide rules were virtually wiped out by the micro-chip. Low-cost Asian textile mills eliminated many jobs in the United States.

But the threat of change is more than offset by the new opportunities it creates. OPEC greatly expanded the market for small cars and for energy-efficient appliances and led to new oil and gas drilling.

Adapting to economic shocks is part of the entrepreneurial experience. Seeking the best ways to respond necessarily involves risk taking--the task of developing a new product is difficult and the chances of being able to translate an idea successfully into a viable enterprise are slight. Entrepreneurs must be willing to bet their own time, money, and effort they can do it. If they are wrong, they, and those who invested in them, lose. The large profits earned by successful entrepreneurs are simply compensation for the risks and the efforts entailed.

Entrepreneurship not only advances the interests of the entrepreneur, it creates opportunities for others. Economist George Stigler observed that "Henry Ford made a lot of money making cars . . . but that was a small advantage compared to the millions of people who were for the first time in their lives emancipated from the common carriers and could live where they wanted, move at the hours they wanted, to places they wanted." In addition, the mass-produced automobile created jobs in the automobile industry and created productive employment opportunities in every other industry in the country.

The benefits of entrepreneurship are enjoyed only if the entrepreneur is operating in a competitive environment in which enterprises are free to enter or leave the industry. Those industries that are highly competitive--such as the computer industry--exhibit a high level of innovation, falling consumer prices, and rapid adaptation. Those firms that do not innovate are soon forced out. Less competitive industries--including some of the nation's

durable goods manufacturing industries--have been free of competition until recently, when foreign competitors penetrated U.S. markets. They have adapted sluggishly, with the resulting loss of market share and tens of thousands of jobs.

Who Are Entrepreneurs?

Entrepreneurship is not limited to ambitious electronics engineers and venture capitalists. Nor is it limited to new or small businesses. Entrepreneurs can be found in all industries, in all areas, in all socioeconomic groups, and in all races. A welfare mother setting up a daycare center, the unemployed steelworker opening an autobody repair shop, the engineer founding a new software company, the thwarted management executive starting a consulting practice, or large computer corporation beginning a crash program to market a new portable are all entrepreneurs. New York is rich in examples:

- Paul H. Quackenbush, who took advantage of the deregulation of airline rates to expand his regional airline based in Utica-Rome into one of the fastest growing corporations in the nation
- Warren Haber and Joel Friedman, who set up a company manufacturing oil field drilling equipment that was aided by the oil price increases in the 1970s to become number 18 on INC magazine's "fast-track 100" list
- Vincent Testa, a former record producer, who climbed to number 170 on INC's list by publishing a swarm of trade and consumer magazines for the music industry--surviving in a highly competitive business

What these people have in common is an alertness to opportunities, a belief they can do something better than others, a willingness to take a risk, and a considerable measure of luck. Those starting businesses will tend to start them near where they live--in the proverbial garage, in the company's main branch in the state, or in low-cost, rented facilities nearby. Entrepreneurs are among the most valuable economic resources that a state has. The challenge for state policymakers is to create an economic development strategy that provides them the opportunity to flourish.

Education and Entrepreneurship

The state cannot create entrepreneurs, but it can create an environment in which they flourish. Yet state policy is rarely entrepreneurial. In most states, economic development activity is focused on attracting industry--once the targets were smokestacks, now it is microchips. Entrepreneurship is further discouraged by the ways that states regulate and tax capital markets--the conduits through which capital flows from investors to businesses. The net effect of state policy is often to discourage risk taking by investors, which denies entrepreneurs capital needed for start-ups and for product development.

Although much still can be done in New York to improve the environment for new and small business in financial, legislative, and regulatory areas, other dimensions of the entrepreneur must also be explored. Where possible, public policy must provide support and direction for the encouragement and growth of entrepreneurs. The education system has not played a major role to date in encouraging entrepreneurs. Traditional economics and career advice has reflected a bias against those who wish to pursue an independent route. Education should identify ways in which it can help potential entrepreneurs emerge and function within the state's economy.

One of the most dramatic recent developments in business and economic education is the proliferation of academic courses designed to teach students how to become entrepreneurs. More than 170 business schools now offer such courses--compared with fewer than 10 in 1970--and the entrepreneur has become a respectable subject of academic research.

In contrast with a decade ago, many more business students today are interested in starting their own business--a reaction in part to the very slow growth in employment among the Fortune 1,000 companies, and in part to the examples set by the microchip industry. Of 750 students in a recent class at Harvard University, 570 elected to take the school's course in entrepreneurship.

It is unlikely that even the best education can turn someone who lacks the requisite personality traits--such as a willingness to take risks, or a fertile imagination--into an entrepreneur. But academic training can teach a person how to evaluate risks and the mechanics of setting up a business and managing that business. It also teaches many students that they are not cut out to be entrepreneurs.

The state education department, through the Entrepreneurship Education Task Force, has begun to specify a number of policies and actions to define and strengthen the relations between education and entrepreneurship in New York. Formed in 1984, the task force is composed of small business leaders, educators, and state officials concerned with economic development. They have identified several critical issues and directions to improve the climate for entrepreneurship: (1) increasing the public's awareness of entrepreneurs; (2) including entrepreneurship among career opportunities, and (3) direct assistance to new and small business.

Awareness

The way that economics and business are taught in high schools is heavily biased toward the role of large business and ignores the critical entrepreneurial functions of risk taking and innovation.

- Curriculum revisions should include materials on, and promote an understanding of, opportunities in small business and entrepreneurship.

- Economic literacy should be provided for all students including an understanding of the free enterprise system.
- Testing programs should include questions on entrepreneurship to reinforce the inclusion of these materials in relevant course and subject evaluation.

Teacher preparation programs should include materials on small business and entrepreneurship.

Exploration of Entrepreneurship as a Career Option

Career guidance seldom includes self-employment and entrepreneurship as options. Steps should be taken to provide students with information about these alternatives.

- The career option of entrepreneurship should be included in appropriate instructional areas and stressed within guidance and counseling functions. This should be done in such a way to increase students' understanding of the characteristics of the entrepreneur, especially the self-understanding and personal suitability through self-screening. Students should also be told of the high risk of failure associated with entrepreneurial activity.
- There should be a balance between career options of working for others versus working for yourself. The regents' action plan provides a basis for this through its new home and careers skills course, occupational education entrepreneurship Modules, and general education social studies/economics courses.
- Direct experience of the entrepreneurship career option should be available through school programs such as the cooperative education program.

Setting Up, Managing and Operating Assistance for Small and New Businesses

There are many personality characteristics required of an entrepreneur that cannot be taught, but there are many other skills needed to convert an idea into a viable business plan that can be learned. Potential entrepreneurs can be found in any society and in any socioeconomic sphere. They can be reached through the broad-based public education system.

There have been a few successful technical assistance programs--public and private (see Appendix)--for entrepreneurs in the United States and some examples from abroad that should be studied in developing a program for New York.

Even though many believe that most entrepreneurial characteristics are innate rather than learned, evidence proves that direct assistance to small and new businesses can increase the business formation rate and reduce their failure rate. The entrepreneurship task force recommends the following:

- Direct assistance to small and new businesses through the education system should focus upon late secondary students and adults, with a technical emphasis focus on the dynamics and mechanics of small business management and ownership, especially on the organization of resources for profit.
- There should be increased emphasis on self-assessment and suitability for entrepreneurship.
- These efforts should be based on a review and analysis of existing programs and support systems and an expansion of successful ones and should aim at ways to decrease the high-mortality rate of small business.
- Programs need to identify and coordinate ways of using the education system to assist entrepreneurs.

There is certainly ample evidence that these technical assistance programs can prove very effective. They would require the state to reach out for potential clients more widely than it has done for more traditional education programs. They also require nontraditional "faculty" and nontraditional hours. The most successful programs make extensive use of local bankers and businesspersons as teachers; establishing a network between the entrepreneurs and the business community is a major function of the "classes."

Finally, attempts should be made to integrate entrepreneurialism into mainstream economics in colleges and universities. Few textbooks and curricula include any detailed consideration of the Austrian School of Economics--Joseph Schumpeter, Friedrich von Hayek, and Ludwig von Mises--that analyzed economic development by considering the importance of the entrepreneur and the role of information costs in the market process.

In summary, the education system can play an important role in the emerging entrepreneurial economy. It can make the public aware of the role played by entrepreneurs and so temper the political pressure to enact protectionist and anti-entrepreneurial economic policies. It can also provide direct assistance to entrepreneurs to raise the rate of new business formation.

APPENDIX

In fall 1983, the New York State Education Department was selected to participate in a national consortium dedicated to improving entrepreneurship education and coordinated by the National Center for Research in Vocational Education at The Ohio State University. James A. Kadamus, the Assistant Commissioner of the Office of Occupational and Continuing Education, appointed representatives from private industries and various state and local agencies to serve on the New York State Entrepreneurship Education Task Force. Chaired by David Gillette, Chief of the Bureau of Economic Development Coordination, this group held four meetings during 1984 and identified a number of activities that would improve entrepreneurship education. One of these suggested strategies was to develop a statement on the interrelationship of entrepreneurship, economic development, and education. At the request of the task force, the education department commissioned Roger Vaughan to research and write this document.

New York State Entrepreneurship Education Task Force

Appointed by

James A. Kadamus

Assistant Commissioner

Office of Occupational and Continuing Education

New York State Education Department

Members and Organizations

Jerry Allen
Chenango County Chamber of Commerce

Shirley Greenwald
NYC Board of Education

Gary Barr
Erie-Cattaraugus #2 BOCES

Edward Harper
NYS Department of Labor

Richard Clark
Clark's Petroleum
NYS Department of Commerce Small
Business Advisory Council

Lloyd Jones
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CHAPTER 3

VOCATIONAL EDUCATION'S EXPANDING ROLE IN ECONOMIC DEVELOPMENT

by Marj P. Leaming, Ph.D and P. Anthony Zeiss, Ed.D.

ABOUT THE AUTHORS

Dr. Marj P. Leaming was Assistant to the Associate Director of Occupational Education for Colorado. Dr. Leaming has been actively involved in the entrepreneurship education thrust in vocational education in Colorado. Nationally, she has served as the 1984-85 president of the National Entrepreneurship Education Consortium.

Dr. P. Anthony Zeiss is Vice President for Instructional Services at Pueblo Community College in Pueblo, Colorado. As such, he has been closely involved in the initiative to marshal the resources necessary to make Pueblo Community College an outstanding example of the important role an educational institution can play in a local initiative for economic development.

Dr. Leaming and Dr. Zeiss co-authored the introduction to this chapter. Dr. Zeiss is the sole author of the remainder of the chapter, "Local Initiative for Economic Development."

Introduction

Historically, vocational education in the United States has had a significant impact on society and has earned wide-spread respect for its recognized contributions toward the dual purpose of: (1) providing saleable skills for individuals and, (2) supplying trained workers to meet labor needs. The 1983 Colorado "Vocational Education Accountability Report" verifies vocational education's value by relating that more than 165,000 students received vocational training for employment in 236 different occupations. The statistics are similar in other states across the nation. Clearly, vocational education plays a significant role in this state's and country's economic welfare.

Certainly, our successes give credibility to our purpose and we can all take a measure of pride in our record. Lest we become smug and complacent in our glory however, it is the writers' opinion that this is the time to examine our accomplishments and reassess our purpose. Even cursory evaluation of current and past vocational education services in our country reveals that we have been primarily involved in only the supply side of the labor market since we train students to be employable. It appears to the writers that there is a new opportunity for vocational education to evolve into an expanded role and mission which will result in a more significant social force. This new

opportunity involves the demand side of the local market. If education as a whole could also become involved in the creation of jobs, as well as continue being a provider of workers, its contribution to this state and country would be unsurpassed.

The Carl Perkins Vocational Education Act of 1984, signed in October, has expanded the general purpose of Vocational Education to include: ". . . assisting the states to expand, improve, modernize, and develop quality Vocational Education programs in order to meet the needs of the nation's existing and future work force for marketable skills and to improve productivity and promote economic growth . . ." Clearly, the legislated intent allows us to expand our role into the demand side of the labor market.

Because of the specific references in the new law to entrepreneurship, small business, revitalization of business and industry, promotion of entry of new business, revitalization of business and industry, promotion of entry of new business and industries, emphasis on new and emerging occupations, and the promotion of economic development, a re-examination of current assumptions and reassessment of our potential is appropriate.

For entrepreneurship education and training to be successful at vocational schools, traditional concepts must be expanded to include the following precepts which support not only the supply side but also the demand side of the labor market. Vocational education must--

- redefine "employment" to include the option of self-employment
- expand "job readiness skills" to include job seeking and interview abilities, as well as job creation skills, and
- expand employer-employee and peer relations to include networking, mentoring, and coaching abilities, as well as business customer/client and buyer-vendor relations.

Essentially, the time is right for vocational institutions at all levels to become "vendors of services" rather than to continue simply as another "supplier of services." The opportunity for vocational education to move forward both in the creation of jobs and as provider of workers must be recognized. We, as vocational educators, can and should assist with the economic development of our communities. Most of us have simply felt obligated to train students for jobs, without the ownership of fostering the development of those jobs. Fortunately, vocational leaders in a score of community and junior colleges and vocational schools have begun to recognize this new opportunity and have recently committed themselves to various economic development activities. In Colorado to date, five community colleges are already operating small business centers and virtually all two-year schools in Colorado are involved in industry-specific training. At least one school, Pueblo Community College, is intimately involved in customized training and in large-scale economic development activities. Their economic development activities have contributed to the creation of 2,300 new jobs in that community. Pueblo Community College is an outstanding example of how a vocational education institution can be actively involved in a local initiative for economic development.

Local Initiative For Economic Development

by P. Anthony Zeiss, Ed.D.

Pueblo Community College has taken the initiative to help spearhead an exemplary program for rendering assistance to new and existing entrepreneurs in its three-county service area. The initial catalyst for getting involved in the economic development arena resulted from the ominous atmosphere of the fall 1982 Pueblo Chamber of Commerce retreat. Pessimistic reports by various businesses and civic leaders at the retreat caused college officials to initiate services that would be useful to businesses and the citizenry of the college's immediate service area. The city of Pueblo has traditionally been a large-business town, which was sustained primarily by steel manufacturing. Also, in 1982 unemployment was soaring at 18 percent, and the community was experiencing a declining growth atmosphere. In view of this economic recession, the college resolved, in typical entrepreneur spirit, to become a "vendor of services" rather than merely evolve as a partner with industry.

The primary motivation behind all of this community action was the very real need to solve the unemployment problem in the local area. Extensive review of the literature and community investigation substantiated the belief that the development of a stable economy was dependent upon the expansion and diversification of businesses, i.e., small businesses. The resultant research indicated that two fundamental, prescriptive elements were necessary for solving unemployment: (1) the creation of jobs and (2) proper labor force training. The college realized that both elements had to be addressed simultaneously; these two activities could not be expected to produce acceptable results independently. Further, it was clear that both activities were dependent upon the cooperation, enthusiasm, and goodwill of the people, industry, government, and training institutions of the community.

Element 1 involved the need for a local initiative designed to expand and diversify the community's economic base via the growth and development of small businesses. An emphasis was placed upon developing and expanding businesses that would market goods and services outside of the community's immediate economic market sphere.

In the fall of 1982, the community college joined with local community leaders and the Pueblo Economic Development Corporation in the exploration of feasible, practical, and workable assistance models that would foster the retention and development of small businesses. A multitude of economic development models were reviewed, researched, and considered. Finally, a comprehensive community study was conducted by the Control Data Corporation, and the results of that study were largely used in the development of the model initiative that is in successful operation today. This model initiative is appropriately titled the Pueblo Business Assistance Network.

The Pueblo Business Assistance Network (PBAN) is unique by its very nature. It provides a unified network of services from virtually the entire community and consists of four major assistance groups:

- o An intake and assistance center
- o A cooperative volunteer assistance group
- o A seed/venture capital investment fund
- o An incubation facility to support new businesses

A comprehensive intake center was developed and put into operation on May 27, 1983 by Pueblo Community College. In its first 7 months of operation, the school's Center for Small Business experienced 183 requests for assistance. These requests resulted in 23 businesses that have either newly opened or have significantly expanded. Further, the city of Canon City, 36 miles to the west of Pueblo, has requested the community college to establish a duplicate Center for Small Business and cooperative volunteer group in their town. This is currently being satisfied via a mobile van, which visits the city on a regular schedule in cooperation with the city's chamber of commerce. The center is an integral part of the college's business division and provides expert assistance in business and financial plan development and in general management principles.

A nonprofit cooperative volunteer assistance group, consisting of dozens of volunteers from numerous professions, was formed in the spring of 1983 as the Pueblo Cooperation Office. It is the primary purpose of this group to provide in-depth assistance via practicing professionals. Typically, as a client progresses through the formation of a business plan at the college's Center for Small Business, specific needs are identified that require the expertise of volunteer professionals. To date, the cooperation office has logged 600 hours of assistance to entrepreneurs and has been responsible for at least two major business expansions. The cooperation office is presently located at the college's Center for Small Business.

A seed/venture capital fund was deemed necessary since usual financial institutions do not lend money to high-risk entrepreneur-type ventures. A survey of lending institutions in the Pueblo area revealed that there was little or no capital to be borrowed on a nonsecured basis. As a consequence, several community leaders developed and incorporated a community-based, private, for-profit seed/venture investment fund incorporated as the Capital Ideas Fund. Basically, the fund is designed to render financial assistance to any new or existing small business that (1) is based in Pueblo County and (2) will create jobs via the exportation of goods and services. Revenues for the fund were raised through an initial, private stock offering. The corporation plans to increase its revenues and public involvement via a public offering of stock sales in the summer of 1984. To date, the fund has screened approximately 50 entrepreneur ideas and has participated in the funding of two new small businesses: a light manufacturing company and a meat-processing company. Both companies are now in operation. The Capital Ideas Fund was incorporated in June 1983.

The fourth, and equally important part of the Pueblo Business Assistance Network, is the incubation facility. Called the Business and Technology

Center, this facility is currently in the last stages of development by the Pueblo Economic Development Corporation. The facility involves the purchase and renovation of a 40,000 square-foot building in downtown Pueblo. The center has been modeled after the highly successful incubation facilities developed and operated by the Control Data Corporation at numerous locations across the United States. The center is designed to provide affordable technical assistance and low overhead costs to new small businesses when cash flow is most critical. The cost pooling of secretarial, telecommunications, and copying services provides an economically conducive atmosphere for the new businesses that locate in the building. The facility is scheduled to be open in August 1984.

Element 2, which involves the training or retraining of a proper labor force, primarily involves the community's educational institutions. Pueblo Community College has also publicly voiced its commitment to this activity. The college has already begun offering fast-track courses, has increased its course schedules to accommodate shift workers, and has recently revalidated every course competency to insure the delivery of current and practical training. Additionally, the college recently provided, free of charge, a comprehensive dislocated worker assistance program. This activity consisted of a series of personal development and career development workshops. The college recognizes that the following basic activities must become a permanent part of its services if the momentum created by the initial economic development initiative is to continue:

- Personal development workshops
- Career development workshops
- Basic skills assessment and remediation
- Skills training tailored to businesses identified by PBAN

In concert with these comprehensive economic development activities, the community college is directly assisting with the development of a statewide network of similar "Centers for Small Business" to be located at community colleges throughout the state. This effort is coordinated through the business division of the state vocational education department.

It is recognized that this model initiative may not be a panacea for the unemployed or for community economic development. It is further recognized that community colleges must also continue to attend to the educational needs of our youth. However, it is the writer's opinion that America's greatest challenge, that of capturing and creating new economic markets and providing a trained labor force for those new jobs, must be met head-on. These issues must be addressed quickly and positively through local initiatives such as the one in Pueblo, Colorado. The implementation of such initiatives, of course, is dependent upon the recognition of the problem and the interest of each community. The final question in this regard is not "Can we afford to attack this societal problem on a community-by-community basis?" but, "Can we afford not to?"

CHAPTER 4

AN ACTION PLAN FOR ENTREPRENEURSHIP EDUCATION IN ILLINOIS

Prepared by the Illinois Task Force
on Entrepreneurship Education

Executive Summary

The Illinois Task Force on Entrepreneurship Education commends the Illinois State Board of Education, Department of Adult, Vocational and Technical Education for having the vision and foresight to bring together individuals representing a variety of private and public sector agencies with the challenge of working collectively on entrepreneurship education. The charge given to the task force, as stated in a letter from Mr. James R. Galloway, Assistant Superintendent, was to: "Infuse entrepreneurship education in all levels of vocational and adult education."

Working as partners from business, education, and government, the task force has served as a catalyst to accomplish its charge by developing "An Action Plan for Entrepreneurship Education in Illinois." Included in the action plan are the following sections:

- Background on the Entrepreneurship Education Task Force
- Need for Entrepreneurship Education
- The Entrepreneurship Education Framework
- Need for an Action Plan for Entrepreneurship Education in Illinois
- Definition of an Entrepreneur
- Characteristics of Successful Entrepreneurs
- Definition of Entrepreneurship Education
- Mission of the Illinois Task Force on Entrepreneurship Education
- Role of the Illinois Task Force on Entrepreneurship Education
- Accomplishments of the Task Force
- Implementation of the Action Plan
- Recommendations
- Suggested Process for Implementing the Recommendations
- Illinois Task Force on Entrepreneurship Education Members

The task force feels that, as a voluntary task force, the assigned charge has been accomplished through the various meetings held, culminating in the development of this action plan. However, only the ground work has been laid. To fully accomplish the mission of the task force, a commitment and adequate resources targeted for entrepreneurship education are needed.

Based upon the work completed by the Illinois Task Force on Entrepreneurship Education during the past year, the following recommendations were submitted for consideration:

- Identify and operationalize a permanent management body for entrepreneurship education with membership from facilitators and providers of entrepreneurship (by July 1, 1985) to accomplish the following:
 - Promote entrepreneurship as a career option.
 - Initiate teacher education programs within various educational systems.
 - Promote the development of innovative entrepreneurship education delivery systems for entrepreneurship education.
 - Promote business/industry/education partnerships, collaboration, and involvement in entrepreneurship education programs.
 - Oversee entrepreneurship education as a long-term development process.
- Identify and support a person to serve as entrepreneurship education coordinator working as a facilitator with the permanent management body.
- Convene, by September 30, 1985, the permanent management body to develop a strategic plan, including goals, activities, timelines and responsibilities to achieve specific goals of the plan.
- Provide the resources necessary to carry out the afore mentioned recommendations.

Suggested Process for Implementing the Recommendations

- Conduct a 2-day planning conference for the permanent management body with assistance from the Illinois Task Force on Entrepreneurship Education to develop a 3-year strategic plan for entrepreneurship education.
- Give the management body the responsibility and resources needed to implement the strategic plan.

Background on the Entrepreneurship Education Task Force

The Illinois Task Force on Entrepreneurship Education was established as a result of the Illinois State Board of Education, Department of Adult, Vocational and Technical Education joining the National Consortium on Entrepreneurship Education. This 19-member state consortium was established under the auspices of The National Center for Research in Vocational Education at the Ohio State University in July 1984.

The Illinois Task Force on Entrepreneurship Education was initiated to build linkages among organizations that are addressing issues in entrepreneurship education as well as create a network of these organizations to foster the growth of entrepreneurship in Illinois.

At the first meeting of the Illinois Task Force on Entrepreneurship Education, Dr. Novella Ross, Entrepreneurship Project Director from The National Center for Research in Vocational Education, served as a facilitator to assist task force members in developing a state plan for mission, goals, and objectives for entrepreneurship education in Illinois.

Subsequent task force and committee meetings over the past year have resulted in the development of this action plan.

Need for Entrepreneurship Education

Entrepreneurship education is an essential component of the Illinois management model for economic development. A recent publication of the Illinois Development Council entitled A State of Illinois Management Model for Economic Development contains a complete description of the strategies for implementing the model.

The Governor's Small Business Advisory Commission for the State of Illinois highlighted the need for fostering the retention and expansion of small business in their recent (September 1984) report with the following statements:

- In Illinois there are 255,508 small businesses (under 500 employees). Collectively they represent 99.4 percent of all businesses in the state and 3,842,099 jobs or 66 percent of the total work force.
- Nationally, small business has been the major net provider of jobs.

"The State of Small Business: A Report of the President," which was transmitted to the Congress in March 1984, states the following:

- All of the 984,000 net new jobs generated in the American economy during 1981 and 1982 came from independent small businesses with fewer than 20 employees.

- Small businesses produced a total of 2,650,000 new jobs, more than offsetting the 1,664,000 jobs lost by large businesses.

An environment that encourages the development of small business in Illinois could improve the economic well-being of the entire state. For example, if every small business in Illinois added one employee, our level of unemployment would be reduced by over 50 percent.

The publication of the Governor's Small Business Advisory Commission entitled The Small Business Agenda--An Action Plan for Job Creation and Economic Growth contains a plan of action, which further documents the need for implementing entrepreneurship education and would require all educational institutions to better prepare their students for success in the workplace:

1. Require the teaching of small business and basic economic understanding in the elementary and secondary schools to insure successful entry into the job market.
2. Require 2-year and 4-year educational institutions to develop educational programs that allow undergraduate students to pursue a major and graduate with a degree in small business.

The Entrepreneurship Education Framework

Entrepreneurship education, as envisioned, is a comprehensive program designed to serve the diverse needs of a broad population base. As such, it is important to identify the process of acquiring the necessary competencies in a variety of educational settings. The Lifelong Entrepreneurship Education Framework that was developed at the National Center for Research in Vocational Education includes the following components:

- Stage 1-- Entrepreneurship career awareness, basic skills, and economic literacy
- Stage 2-- Entrepreneurship interest and awareness
- Stage 3-- Creative application of occupational skills and entrepreneurship competencies
- Stage 4-- Entrepreneurship venture development
- Stage 5-- Long-term expansion/redirection

The framework illustrates entrepreneurship as a developmental process over an extended period of an entrepreneur's life and defines the difference one would expect to see in various types of entrepreneurial programs. It also indicates the importance of defining a number of important needs and learning processes before infusing entrepreneurship into any educational program.

Need for an Action Plan for Entrepreneurship Education in Illinois

An exciting and challenging role for entrepreneurship education is emerging in the final decades of the 20th century as more and more Americans are deciding that only through ventures of their own can they achieve the kind and the quality of life they envision for themselves and their families. It is no longer news that small and new businesses provided most of the 20 million new jobs generated between 1970 and 1980, a trend that has persisted throughout the eighties despite the recent recession period.

Small businesses have been a major source of jobs for a wide cross section of workers: the young, older adults, part-time workers, and the cyclically unemployed. As the American economy goes through structural changes, small firms are exhibiting the imagination and flexibility needed to adapt to these changes and are providing jobs for many workers who are finding themselves displaced. Likewise, vocational education during the 1980's is being called upon to play a leadership role in the promotion of entrepreneurship education as a viable economic development strategy.

Because the government, in the most recent decades, has tended to view Americans as employees and consumers rather than as entrepreneurs and producers, the climate for small independent ventures has deteriorated. The owners of America's small businesses are learning that they must participate more in formulation of government policies and make their views known not only to benefit small business but to benefit the nation as a whole.

The recommendations emanating from state and national conferences on small business have encouraged the development of entrepreneurship education programs. These programs should entail initial education, continuing management assistance, and some means to update specific skills. The small business delegations also called for the development of curricula on the American economy in primary, secondary, and postsecondary schools to familiarize Americans with basic economic, business, and entrepreneurial principles. These recommendations envision a partnership among government, educational institutions, and business to launch a national program.

The U.S. Department of Education has prepared the following policy statements relative to entrepreneurship education:

- It is the policy of the U. S. Department of Education to encourage the inclusion of entrepreneurship as an integral part of vocational and adult education and to support all endeavors that serve to increase the capacity of vocational and adult education to deliver education for entrepreneurship.
- In making entrepreneurship education a focus of concern for vocational and adult education, the U.S. Department of Education

believes that the quality and contributions of private enterprise will be enhanced. A new vision for entrepreneurship education, implemented by state and local initiatives, deserves the attention and support of all leaders and practitioners in American education.

Although a variety of organizations have developed programs to prepare people for new venture creation, there have been limited opportunities to build networks to deliver education and training appropriate for the different types of entrepreneurs.

The Illinois Task Force on Entrepreneurship Education felt that this realistic, coordinated action plan for the state would bring together programs that affect entrepreneurial education. The result would be coordination among agencies that now frequently work at cross-purposes and greater efficiency in the expenditure of state funds. This action plan could provide the framework under which a range of agencies--small business administration, chambers of commerce, employment and training, government, economic development councils, education--could work together toward economic development goals that they could not achieve independently.

Definition of an Entrepreneur

An entrepreneur is an individual who undertakes self-directed initiatives and assumes personal risks in creating and operating a profit-oriented business.

Characteristics of Successful Entrepreneurs

Some of the important characteristics found in successful entrepreneurs include placing a high value on success, emotional involvement with the enterprise, perseverance, imagination, competitiveness, good physical health, superior conceptual abilities, broad thinking, high self-confidence, strong drive, basic need to control and direct, moderate risk-taking abilities, a strong sense of reality, interpersonal skills, sufficient emotional stability, and possession of the "spirit of entrepreneurship."

Definition of Entrepreneurship Education

A long-term developmental process that stimulates awareness of the opportunities inherent in new ventures and provides the necessary skills for creating and expanding them.

Mission of the Illinois Task Force on Entrepreneurship Education

Foster the growth and development of entrepreneurship in the State of Illinois.

Role of the Illinois Task Force on Entrepreneurship Education

Identify and help structure a permanent management body to promote entrepreneurship in Illinois.

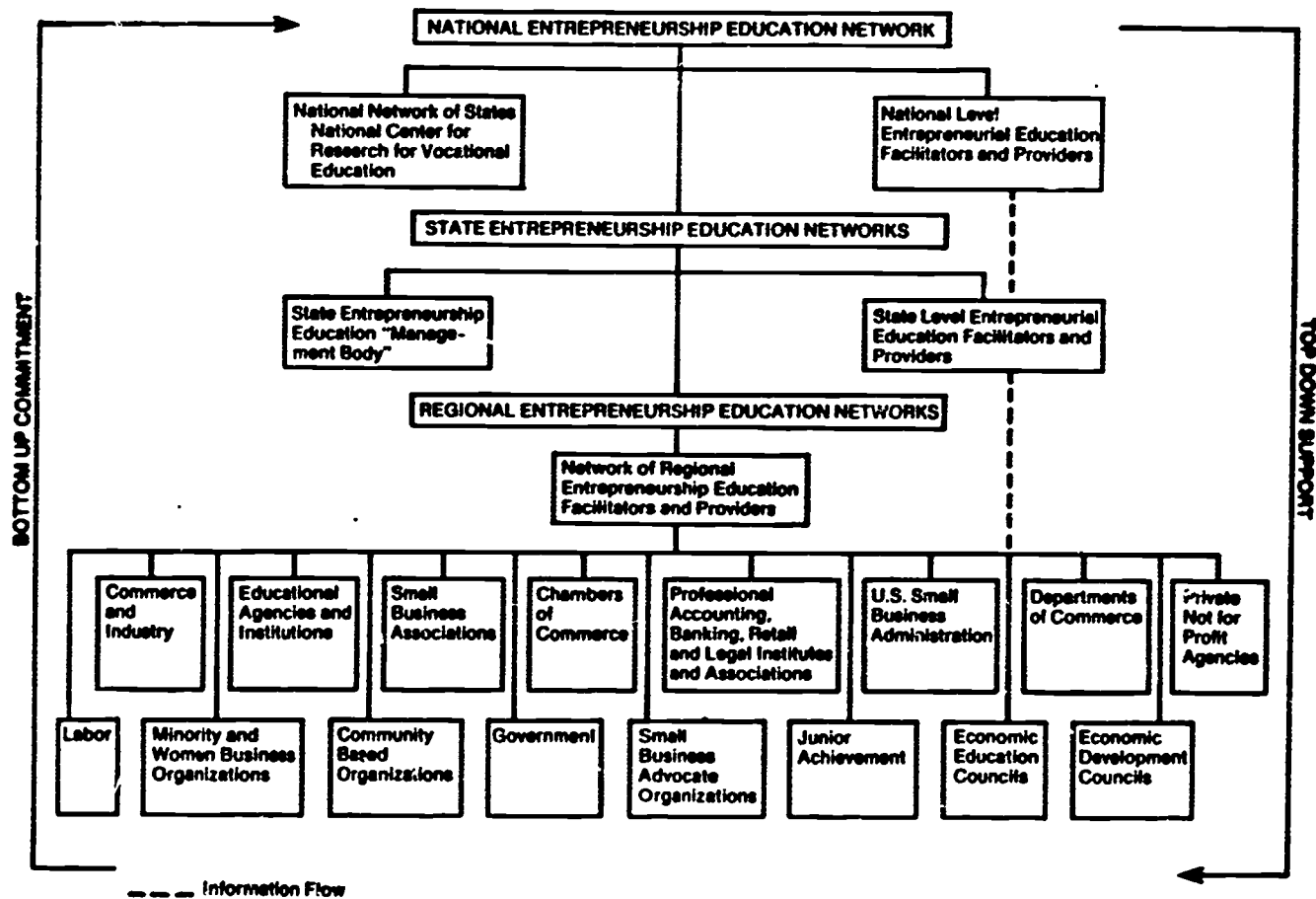
Accomplishments of the Task Force

- Identified and studied many existing entrepreneurship education programs throughout the state and the nation
- Identified and studied existing organizations (public and private) involved in the delivery of programs that prepare and upgrade the competencies of entrepreneurs
- Served as an advisory body for existing entrepreneurship education activities
- Identified what was needed (i.e., resources, programs, cooperative relationships) to achieve the mission of the task force
- Served as a catalyst for identifying and creating a permanent management body to promote and implement entrepreneurship education in the State of Illinois
- Provided initial leadership to help transfer the responsibilities to the permanent management body for entrepreneurship education by December 31, 1985
- Developed "An Action Plan for Entrepreneurship Education in Illinois "

Implementation of the Action Plan

Figure 1 is a visual presentation of a proposed management model for entrepreneurship education. This model is based on the premise that there must be bottom-up commitment and top-down support before entrepreneurship education makes a significant contribution in revitalizing the economy at local, regional, state, and national levels. The model is designed to promote avenues of partnership between and among a wide array of private and public sector facilitators, providers, and consumers of entrepreneurship education services to foster and strengthen small business.

To achieve the goals of the proposed network, careful planning and implementation of a strategic plan for marketing entrepreneurship education will be required. The implementation of the plan will begin with concurrent efforts being directed in the following two critical areas:



SOURCE: E. Edward Harris, Strategies for Maximizing the Contributions of Small Business and Entrepreneurship to Economic Development (Springfield, IL.. 1985), 25.

Figure 1. Proposed national management model for entrepreneurial education

- Work to gain the essential leadership, commitment, and support from key private and public sector agencies and organizations.
- Begin research in the environmental analysis by identifying ongoing entrepreneurship education programs and determining what entrepreneurship education activities are being carried on by various agencies and organizations and continue to work cooperatively with various agencies such as The National Center for Research in Vocational Education.

Recognizing that the task force was organized as a voluntary group, the members feel that it is beyond their original charge and mission to implement the goals that were developed. Therefore, the task force is submitting to the Illinois State Board of Education/Department of Adult, Vocational and Technical Education the following recommendations:

Recommendations

Based upon the work completed by the Illinois Task Force on Entrepreneurship Education during the past year, we recommend:

- Identify and operationalize a permanent management body for Entrepreneurship education with membership from facilitators and providers of entrepreneurship (by July 1, 1985) to accomplish the following:
 - Promote entrepreneurship as a career option.
 - Initiate teacher education programs within various educational systems.
 - Promote the development of innovative entrepreneurship education delivery systems for entrepreneurship education.
 - Promote business/industry/education partnerships, collaboration, and involvement in entrepreneurship education programs.
 - Oversee entrepreneurship education as a long-term development process
- Identify and support a person to serve as entrepreneurship education coordinator working as a facilitator with the permanent management body.
- Convene, by September 30, 1985, the permanent management body to develop a strategic plan, including goals, activities, timelines, and responsibilities to achieve specific goals of the plan.
- Provide the resources necessary to carry out the afore mentioned recommendations.

Suggested Process for Implementing the Recommendations

- Conduct a 2-day planning conference for the permanent management body with assistance from the Illinois Task Force on Entrepreneurship Education to develop a 3-year strategic plan for entrepreneurship education.
- Give the management body the responsibility and resources needed to implement the strategic plan.

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APPENDIX

INFORMATION ON SMALL BUSINESS INCUBATORS

The following publications on small business incubators are available free of charge from the SBA's Office of Private Sector Initiatives, 1441 L St. N.W., Room 720-A, Washington, DC 20416.

Berger, Renee. The Small Business Incubator: Lessons Learned from Europe. Washington, DC: Office of Private Sector Initiatives, U.S. Small Business Administration, 1984.

Council for International Urban Liaison. Small Business Incubation: Successful Models from Abroad. Washington, DC: SBA Office of Private Sector Initiatives, U.S. Small Business Administration, 1984, 52 pp.

Illinois Department of Commerce and Community Affairs and the U.S. Small Business Administration, Region V. Starting a Small Business Incubator: A Handbook for Sponsors and Developers. Washington, DC: Office of Private Sector Initiatives, U.S. Small Business Administration, 1984, 79 pp.

This guide reviews incubator characteristics, steps in developing incubators, and sources of financial and technical assistance. It also includes profiles of 10 incubators.

Incubator Times. Washington, Office of Private Sector Initiatives, U.S. Small Business Administration.

U.S. Small Business Administration. Incubators for Small Business. Washington, DC: Office of Private Sector Initiatives, U.S. Small Business Administration, 1984, 7 pp.

This pamphlet lists names and contact information for 31 incubators.

Small Business Incubator Sample Information Package. Washington, DC: Office of Private Sector Initiatives, U.S. Small Business Administrations, n.d., 23 pp.

This resource contains news clips and project summaries.

The following general information on small businesses and small business assistance programs is also available from the SBA.

U.S. Small Business Administration. State Activities in Venture Capital, Early-Stage Financing, and Secondary Markets. Washington, DC: Office of Advocacy, U.S. Small Business Administration, 1984, 63 pp.

A Summary of Major State and Local Small Business Issues in 1984. Washington, DC: Office of Advocacy, U.S. Small Business Administration, 1984, 24 pp.

_____. The State of Small Business: A Report of the President.
Washington, DC: U.S. Government Printing Office, 1984, 485 pp.

This report includes "The Annual Report on Small Business and Competition of the U.S. Small Business Administration."

_____. The States and Small Business: Programs and Activities.
Washington, DC: Office of Advocacy, U.S. Small Business Administration, 1983, 238 pp.

This report presents a state-by-state summary of programs and assistance available for small business.

_____. Facts About Small Business and the U.S. Small Business Administration. Washington, DC: Public Communications Division, U.S. Small Business Administration, 1981, 22 pp.

OTHER PUBLICATIONS AND ARTICLES

Incubators

Allen, David N., Ginsberg, Judith E. and Meiburger, Susan A. Home Grown Entrepreneurship: Pennsylvania's Small Business Incubators.
University Park: Institute of Public Administration, Pennsylvania State University, 1984, 38 pp.

This volume was published in cooperation with the Pennsylvania Department of Commerce, Harrisburg.

Bradford, Calvin. "Private Sector Initiatives and Public Sector Accountability: A Case Study of Contracting with City Venture Corporation."
Journal of the American Planning Association 49 (Summer 1983): 326-335.

This case study includes references to local experiences with Control Data Corporation Business and Technology Centers.

Campbell, Candace. "Hatching Small Business." Planning (May 1984): 19-24.

Governor's Office of Policy and Planning. "Advanced Technology Development: A Review of Small Business Incubator Initiatives." Harrisburg, PA: 1982, 21 pages.

National Council for Urban Economic Development. Incubator Resource Kit.
Washington, DC: National Council for Urban Economic Development, 1984.

This collection of background materials, news clips, and project summaries includes four sections, which may be purchased separately: "Model Documents: Tenant Application Forms and Lease Agreements"; "Incubators: Adaptive Reuse and Industrial Rehabs"; "'HighTech' and University-Affiliated Incubators"; "Incubators: Newly Constructed Facilities and Facilities Keyed to Industrial Parks."

Phalon, Richard. "University as Venture Capitalist." Forbes, 19 (December 1983).

This article discusses the trend toward university involvement in incubator projects as a component of local high tech development strategies, with particular reference to the Rensselaer Polytechnic Institute in Troy, N.Y.

Purcell, Mia. The Industrial Incubator. Information Service Report No. 27. Washington, DC: National Council for Urban Economic Development, 1984, 20 pp.

This report describes and compares seven different incubator facilities, highlighting the critical decisions to be made in designing, financing and managing a successful incubator.

"Special Report: Growth in Business Incubators Seen Helping Some Areas Create Jobs; Here's How." Economic & Industrial Development News, 19 (December 1983):

Temali, Mihailo. "Incubating Business Good CED Strategy." Economic Development and Law Center Report (May/August 1984): 51-55.

Temali, Mihailo and Campbell, Candace. Business Incubator Profiles. Minneapolis: Hubert H. Humphrey Institute of Public Affairs, University of Minnesota, 1984, 61 pp.

This report discusses a survey of 50 business incubators for the institute's Cooperative Community Development Program.

U.S. Congress, Office of Technology Assessment. Technology, Innovation, and Regional Economic Development: Encouraging High-Technology Development--Background Paper #2. Washington, DC: U.S. Government Printing Office, 1984, 98 pp.

This report is available for \$4.75 from The U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402. Request GPO stock number 052-003-00942-1.

Weinberg, Mark. "The Role of the University in Local Economic Development: A Case Study of University Participation in a Business Incubation Center." Athens: Institute for Local Government Administration, Ohio University, 1984.

This paper was presented at the annual conference of the American Society for Public Administration, Denver, CO, April 8-12, 1984.

Small Business Job Creation

Armington, Catherine and Odle, Marjorie. "Sources of Job Growth: A New Look at the Small Business Role." Economic Development Commentary 6 (Fall 1982): 3-7.

Birch, David. "Generating New Jobs: Are Government Incentives Effective?" Economic Development Commentary 3 (July 1979): 3-6.

_____. The Job Creation Process. Report to the U.S. Department of Commerce. Washington, DC: U.S. Government Printing Office, 1979.

Friedman, Robert. "Reducing Unemployment Through Enterprise Development." Economic Development and Law Center Report (July/August 1983).

Garn, Harvey A. and Ledebur, Larry C. The Renaissance of Concern for Small Business Enterprise in the United States. Washington, DC: The Urban Institute, 1980, 32 pp.

Shapero, Albert. "Developing a High-Tech Complex Through Small Company Formations." Survey of Business vol. no. (Summer 1982): 1-4.

_____. "Entrepreneurship in Economic Development." In Expanding the Opportunity to Produce: Revitalizing the American Economy through New Enterprise Development, edited by Robert Friedman and William Schweke. Washington, DC: Corporation for Enterprise Development, 1981.

_____. "Entrepreneurship: Key to Self-Renewing Economies." Economic Development Commentary 5 (April 1981): 19-23.

CONTACTS

Nonprofit or Publicly Sponsored Facilities

Many of the incubator projects underway are sponsored by nonprofit or public entities and the universe of such facilities is growing rapidly. Because space limitations preclude an attempt to list the many examples of such facilities here, readers are referred to those publications listed in the preceding section that include good profiles and listing with contact information (see especially, Incubators for Small Business [SBA] and Business Incubator Profiles [Humphrey Institute of Public Affairs]).

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