ABSTRACT
Although the importance of entrepreneurship to the American economy has been documented, a review of research reveals that knowledge about entrepreneurship education is sparse and that research on entrepreneurship education for women is almost nonexistent. A summary of this research indicates that sex stereotyping in schools inhibits women from acquiring the insights, motivation, and skills to become entrepreneurs and that entrepreneurship education for elementary and secondary school students tends to be extremely limited in quantity and deficient in quality. Also, although research does not distinguish between entrepreneurs and small business managers, data indicate that psychological characteristics which separate entrepreneurs from others seem to be determined outside the educational structure, with family influence being the most dominant. Further, considering the important role of mentors, exposure of women to female entrepreneurs is important in encouraging women-owned businesses. Based on the findings and national reports, an agenda for entrepreneurship education for women should include research to determine needs of women business owners, an evaluation of current educational programs, development of educational materials at the elementary school level, continued enforcement of legislation and programs to reduce sex bias and stereotyping in the schools, and development of materials which accurately portray the role of women business owners. (KC)
ENTREPRENEURSHIP EDUCATION
FOR WOMEN:
A RESEARCH REVIEW AND AGENDA

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INTRODUCTION

In recent years there has been an increase of interest in the newly emerging discipline of entrepreneurship education (Vesper 1982). The number of junior colleges and universities offering entrepreneurship education programs has expanded significantly. While this interest has not yet permeated to the elementary and secondary level there are some signs of awakening. (Kent, 1981).

The entrepreneurship education movement is preceding in an uneven and disjointed fashion. The lack of knowledge regarding the entrepreneurial process in general and the education needs of entrepreneurs in particular has caused entrepreneurship education to go forward with only the most vague idea of appropriate direction.

This paper has several objectives:

1. To summarize the importance of entrepreneurship to the American economy.
2. To present a profile of female small business initiators.
3. To review the research pertaining to education for female entrepreneurs.
4. To indicate an agenda directed toward the educational needs of female venture initiators.

I. THE ROLE OF THE ENTREPRENEUR

Since the days of Schumpeter (Schumpeter, 1936) economists have seen the entrepreneur as the key figure in the process of economic
development. The entrepreneur has been described as, "the one who sees the opportunity for introducing the new commodity, technique, raw material, machine and brings together the necessary capital, management and labor materials to do it ... In any society the rate of technological progress and therefore economic development depends greatly on the number and ability of entrepreneurs available to it" (Higgins, 1968).

As Broehl has noted entrepreneurs are the important "change agents" in every society, whether primitive or developed (Broehl, 1982).

The importance of entrepreneurship to the American economy has been documented. Despite a steady decline in the share of national output accounted for by small business (Popkin, 1976), businesses employing less than 500 people account for almost half of the production of goods and services in our country. The contributions of smaller businesses to innovation are noteworthy. The National Science Foundation indicated that smaller businesses were a more productive source of innovation for each research and development dollar spent than were medium and larger size businesses (National Science Foundation, 1976).

Well over half of the entire U.S. work force is employed by small business. A study completed in the mid seventies found that 86 percent of the new jobs created in the economy during the late sixties and the early seventies could be attributed to firms employing less than 500 people and 66 percent of the new jobs were created in firms of less than 20 employees. Seventy-five percent of all new jobs created in the economy came from firms that were less than five years old (Birch, 1979). A recent unpublished study by the Brookings Institution has challenged the magnitude of these statistics but still finds that small
business supplies a significant amount of new employment opportunities (Wall Street Journal, September 8, 1982).

While not all small businesses can accurately be classified as entrepreneurial, entrepreneurship usually begin as small businesses. What differentiates the entrepreneur from others who own small business is the taking of the initial venture through a rapid growth cycle into maturity. This differentiates the entrepreneurship from the "mom and pop" operation which is strickly an alternative to wage employment.

II. A PROFILE OF WOMEN ENTREPRENEURS

One of the major difficulties in determining educational and other policies directed toward women entrepreneurs is the paucity of data upon which research can be based. The principal source of data for women-owned business are the Census Bureau's 1972 and 1977 Surveys of Women-Owned Business. (A women-owned business is one which is at least 51 percent owned or controlled and operated by a women. Executive Order of the President 12138). Women-owned businesses accounted for 10.2 percent of all firms and 5.7 percent of all receipts in the American economy in 1977. This represented increases of 30 and 72 percent respectively from 1972.

Women-owned business firms tend to be concentrated in the service and retail industries where seventy-five percent of them are located. In addition over 75 percent are sole proprietorships. Over 70 percent had no full- or part-time employees and almost half were located within the residence of the owner. Women-owned businesses tended to be small first-time endeavors. The average age of a woman owner was 52 years. Seventy-three percent were not married. Those who were married tended to own larger, more profitable firms outside the retail and services sector. Ninety percent of all
women business owners were white. As a group, they were well educated with over 75 percent having had schooling beyond the secondary level.

This profile suggest that many women small business owners cannot be classified as entrepreneurs as their businesses appear to be supplements to income from other sources (wage employment, insurance benefits, alimony, etc.) rather than ventures established with the expectation of growth. This contention is further bolstered by the statistic in the 1977 Census Report that over half of all women who own their own businesses spend less than 20 hours a week pursuing them.

New data just now being released by the Small Business Administration indicates that business ownership by women is on a dramatic increase. This data shows that the number of self employed women grew by 43 percent from 1972 to 1979 and the number of sole proprietorships operated by women increased 7 percent. Over forty billion in gross receipts comes from these firms (The Week in Review, September 27, 1982).

III. ENTREPRENEURSHIP EDUCATION FOR WOMEN

Despite the growing interest in courses, conferences and research in entrepreneurship education, it is generally conceded that not much is known about the process by which people come to start their own ventures or what the education system can contribute to that initiation and its subsequent success. While knowledge about entrepreneurship education is itself sparse, research on entrepreneurship education for women is almost barren. This section reviews the tentative findings this initial research has revealed.

Entrepreneurship education exists at three levels—awareness,
motivation and actualization. Entrepreneurship awareness should dominate at the elementary and early secondary level with motivation coming to the forefront during the later secondary and post-secondary years. Actualization occurs when the business is planned and implemented. Awareness refers to making the potential entrepreneur cognizant of the contributions of entrepreneurship to economic growth and the possibility that entrepreneurship might be a viable career option. Inspiration is the process by which the prospective entrepreneur becomes committed to the idea of business ownership. Actualization refers to the acquisition of the necessary motivation and skill for an individual to initiate and develop a business of their own.

Awareness

Awareness of the possibility that one might become an entrepreneur should begin at an early age. The President's Interagency Task Force on Women Business Owners has indicated that sex stereotyping in the school years forecloses educational opportunity and options to women who might become aware of venture initiation as a career possibility (The Bottom Line: Unequal Enterprise in America, 1978). Evidently sex stereotyping as to occupational choice begins early with most girls by ages 3 to 6 having already restricted their aspirations to the traditional careers available for women (Leifes and Lesser, 1976). One study cites sexist education material, exclusion of girls from team sports, sexist counseling materials, non-supportive counselors and the lack of female administrators as causal factors for the negative sex stereotyping (Verheyden-Hillard, 1977).

As a result of this early stereotyping, women tend to gravitate towards training in traditional occupations as evidenced that nearly
half of all girls enrolled in vocational education programs were in either consumer or homemaking courses (Verheyden-Hillard 1977). A University of California at Berkeley study found the lack of mathematical skills as a major factor in restricting occupational choice among females. This was despite mathematical achievements for females which generally exceeded that of males during the early elementary years (Fox, Fennema and Sherman, 1977). These math skills are prerequisite for training in business and technical subjects which are the most needed by venture initiators.

One of the more thoroughly investigated areas of entrepreneurship concerns the psychological characteristics and propensities of entrepreneurs (Brockhaus, 1970 and 1982). While the majority of these studies have been done using only or predominantly male subjects, the research tends to confirm that there are no significant differences in either motivation or psychological characteristics between male and female entrepreneurs (Hornaday and Aboud, 1971; DeCarlo and Lyons, 1979; Schrier, 1975). These tests show that entrepreneurs of both sexes place higher personal value on achievement, autonomy, aggression, independence and leadership, and less value on support, conformity and benevolence than do non-entrepreneurs of either sex. A somewhat contrary conclusion was reached in a survey of 100 Texas women who were either successful executives or entrepreneurs. Both groups of women appear to have similar backgrounds, motives, personalities and education (Sexton and Kent, 1981).

Studies done by the American Management Association on 287 women business owners and an in-depth interview by Swartz of 25 successful female entrepreneurs concluded that the major motivations for becoming
entrepreneurs were the need to achieve, the desire to be independent, the need for job satisfaction and necessity. These were exactly the same factors which other studies indicate motivated male entrepreneurs. Those investigations concluded that the similarities between male and female entrepreneurs are far greater than their differences (Swartz, 1976; American Management Association, 1978).

The extent to which the desire to be an entrepreneur can be taught has been investigated by McClellen and his disciples (McClellen 1961, 1965; McClellen and Winter 1969). While these studies suggest that entrepreneurial tendencies can be learned, they are subject to serious questions regarding their validity. They give virtually no direction as to how an entrepreneurship education program should be structured to provide the necessary stimulus.

Students of both sexes passing through the typical school program are unlikely to be made aware of either the importance of the business initiator or the possibility that this is a potential career path. Very little material in the form of books, curriculum guides or films exists which would create this awareness (Kent, 1981). What does exist is often misleading distorting the role of the entrepreneur by reducing it to "robber barron" and ascribing to entrepreneur the most undesirable personal characteristics. The work of Kourilsky and others with the "mini society" and "kindereconomy" an exception (Kourilsky, 1977) and shows that learning about entrepreneurship in a "hands on" environment is effective in creating awareness among elementary aged students (Kourilsky and Campbell, 1981).
Inspiration

Providing the pupil with sufficient inspiration to choose venture initiation as a career is another task for entrepreneurship education. One of the more profitable areas of research concerns the lifetime experiences of entrepreneurs. These studies look for critical events over the lives of entrepreneurs which may have inspired them to choose venture initiation as a career. The most complete of these studies was done at Baylor and used responses to a questionnaire completed by almost 1,600 successful entrepreneurs who were members of the National Federation of Independent Business (Kent, Sexton and Conard, 1981). Regrettably, less than 30 of the respondents were women permitting no statistical analysis to be done comparing the two groups.

In the study, cross tabulation analysis was completed to determine which lifetime experiences significantly differentiated between entrepreneurs and managers. Then discriminate analysis was used to predict based upon the similarities in their lifetime experiences whether individuals would be entrepreneurs or managers. The analysis found that in 76 percent of the cases lifetime experiences could accurately discriminate between entrepreneurs and managers.

The cross tabulation analysis looked at educational experiences to see if they had any statistically significant impact in differentiating entrepreneurs from non-entrepreneurs. Educational experiences used in the study included the traditional courses offered in high school and college as well as participation in certain outside activities during school years. Data was also collected on work experiences during the formative years which might have had an impact on the later decision to become an entrepreneur. Information also was accumulated on the family backgrounds of respondents and certain personal characteristics.
In the Baylor study the two most important influences in distinguishing between those who become entrepreneurs rather than managers were the influence of other individuals, particularly parents, and the length of work experience. This is consistent with the data or women business owners acquired by the American Management Association and the Interagency Task Force which found that having a parent, especially a father, in business was the most significant motivator in becoming an entrepreneur. It appears that entrepreneurs beget entrepreneurs.

The need for mentors and role models for women if they are to be successful in climbing the ladder of executive success has been established (Holcomb, 1978; Roche, 1979; Higginson and Quick, 1980). Most female executives have a male mentor (Lee, 1980) or parent who guided and advised their progress. This finding is usually attributed to the lack of women to provide such functions. It can be suggested that programs for women where they can interact with successful female venture initiators and establish nurturing relationships may be a useful way of providing entrepreneurial inspiration.

A startling difference between the findings was while the Interagency Task Force and the AMA found that for women work experiences during school tended to produce entrepreneurs, engaging in extracurricular work activities had no statistical validity as a determinant of venture initiation in the Baylor study.

The Task Force and AMA studies indicated that women entrepreneurs tended to be highly educated while the Baylor study (which involved mostly men) found a statistically significant result that entrepreneurs tended to be less educated than managers. Even though women entrepreneurs were highly
educated, their training tended to be in fields which they considered to be of little value to them in starting their own businesses. For example, of those with college degrees 71 percent hold bachelor's degrees in liberal arts or fine arts and only three percent had degrees in business.

Women respondents in the Task Force and A.M.A. studies felt that their lack of training in business was a major inhibiting factor in their success as entrepreneurs. The Baylor study indicated that training in business at the college level tends to encourage individuals not to become entrepreneurs but instead to choose management as a career. This same conclusion was reached by the delegates to the White House Conference on Small Business. (America's Small Business Economy: Agenda for Action, 1980). This result may be explained by the current bias in college business school curriculums towards mid-level management and professional accountancy.

Actualization

Actualization is the process by which the individual is provided with the necessary insights and skills to start a business and to carry it through its growth cycle.

There is no dearth of "how-to" books which spell out for the entrepreneur the necessary steps to be taken in starting a business. (McClung and Constantin, 1982). Likewise the proliferation of conferences and seminars designed for new venture initiators indicates that information is available. The appropriateness and usefulness of these seminars and conferences may be questioned. For example, the Baylor study indicated that attendance at such programs at no way discriminated between those who started businesses and those who did not.

In the Interagency Task Force survey of 3,200 women business
owners, the respondents cited the greatest barriers to either starting or successfully developing a business as:

1. Inability to obtain adequate financing.
2. Lack of administrative background in previous employment.
3. Deficient skills in basic management and financial techniques.

These are exactly the characteristics found by Dun and Bradstreet as the principle causes for small business failure in 90 percent of the situations which they analyzed (The State of Small Business, 1980).

While the women surveyed in the Task Force report felt females had a more difficult time in obtaining credit than did their male counterparts. There has been no hard data generated either in the report or elsewhere to substantiate this contention. The Equal Credit Opportunity Act of 1975 may have further reduced the problem from the time these surveys were taken.

The existing research (Humphreys and McClung, 1982; Schwartz, 1976) tends to indicate that there are no significant differences in the entrepreneurial education skill needs of men and women. A similar conclusion was drawn in a Canadian study of women business owners in that nation. (Small Business Secretariat, 1982). There have been no specific studies designed or conducted to determine if the training needs of women entrepreneurs are different than those of men and whether or not specific curriculums developed with a female perspective would be useful (Eliason, 1981). The earlier experience of the Women's Economic Development Corporation established after the Task Force report is impressive. Only 2 of over 332 women who passed through their program of counseling and training had gone out of business two years later (Business Week, February 25, 1980).
The report of the Interagency Task Force does note that as a whole women entrepreneurs are not aware and do not take advantage of the materials and training resources available to them. This may be due to the extremely fragmented nature of the delivery system which is split among several federal agencies as well as state and local educational authorities in addition to private vendors. Whether this problem is greater among women than men has never been ascertained.

To summarize the research concerning entrepreneurship education the following conclusions emerge:

1. Sex stereotyping in schools tends to be a factor inhibiting women from acquiring the insights, motivation and skills necessary to become entrepreneurs.

2. While there is some evidence that the motivation to become an entrepreneur can be taught, there is no evidence as to how this can be successfully accomplished through the school curriculum.

3. The psychological characteristics which separate entrepreneurs from others seem to be determined outside the educational structure with family influence being the most dominant of these.

4. Research indicate that lifetime experiences of entrepreneurs inside and outside the classroom does not distinguish between those who start their business and those who manage.

5. Entrepreneurship education materials for elementary and secondary students tend to be extremely limited in quantity and deficient in quality. Current materials do not allow the student to grasp the importance of entrepreneurship or to see entrepreneurship as a viable career option.

6. Considering the important role of mentors increasing the exposure of women to female entrepreneurs may be an important step in encouraging the growth of women-owned business.

IV. AN AGENDA FOR EDUCATIONAL PROGRAMS FOR WOMEN ENTREPRENEURS

There has not yet been a general assessment of the effectiveness of the materials which attempt to teach entrepreneurial skills, nor has a
systematic study been done of what approaches are most productive in deliv-
vering the required information to entrepreneurs of either sex. Until such
research is accomplished, it is difficult to prescribe a research agenda as
to the future direction entrepreneurship education should take.

The Interagency Task Force reached the following conclusions
regarding entrepreneurship education for women:

1. There were 13 agencies providing some form of education
   or training for women entrepreneurs yet few of these
   involved training programs in business and management skills.

2. The programs are fragmented, uncoordinated and generally
   characterized by insufficient outreach.

3. There was no information clearing house to which entrepre-
   neurs and their instructors go to identify available resour-
   ces.

4. Overly restrictive requirements and funding policies for many
   training programs excluded a large number of women par-
   ticipants as well as providers.

5. That no evaluation had been made of existing curricula to
   determine whether it was appropriate to the needs of women.

The White House Conference on Small Business considered the problem
of education for small business owners of either sex as well as the par-
ticular problems peculiar to females. This agenda item was added at the
request of the delegates since it was not included in the original call of
the Conference. Among their recommendations were the following:

1. The Small Business Administration should identify effective
   management training programs and should conduct evaluation of
   existing programs as they relate to the needs of women
   entrepreneurs (Recommendation 38).

2. The Small Business Administration should place more
   emphasis on their Management Assistance Programs and less
   emphasis on their Financial Assistance Programs
   (Recommendation 57).

3. There should be a national policy in the area of entrepreneurial
   education (Recommendation 58).
4. There be the establishment of "one stop" shops for small business assistance programs established at the local level operating using the private business sector, existing government agencies and organizations (Recommendation 59).

5. Congress should enact legislation to provide tax credits for expenses incurred in obtaining entrepreneurship education (Recommendation 60).

The White House Conference also called for a Small Business Education Task Force coming from the small business sector to, "initiate, promote and develop the incentives for demographically, projectable, formal business planning and case history type continuing education and public awareness in small business." These programs were to be self-liquidating. The response of the Government was to establish an Interagency Task Force; to coordinate the programs of the various federal departments with entrepreneurship education components. This Task Force is currently drafting its policy statement.

Based on the recommendations of these two groups and the research reviewed above, the following items appear as the first steps in an agenda for entrepreneurship education for women:

1. Continued research to determine what, if any, are the unique needs of women business owners and the role of education in addressing those needs.

2. An evaluation of current programs to determine which educational delivery system are most appropriate for potential and practicing women business initiators.

3. Development of materials which increase the awareness of female school children about the possibility of venture initiation as a career option.

4. Continued enforcement of legislation and programs designed to reduce sex bias and stereotyping in the schools and curriculum materials.

5. The development of materials which accurately portray the role and importance of women business owners.
6. An overall strengthening and increased coordination of entrepreneurship education programs and efforts across the nation by establishing clearing house organizations and activities.
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