

Charles R. B. Stowe

fin\_crs@shsu.edu

## **Entrepreneurship Education in the United States**

### **Abstract**

*The United States has an almost overwhelming variety of educational programs and activities that are designed to promote entrepreneurship. This inventory is based on a survey of the World Wide Web and academic literature. Where available, information on economic impact of particular programs is provided. The author does not offer commentary on which programs are exportable to specific countries, feeling that the reader is in the best position to import ideas that fit their realities.*

### **Framing the Investigation**

Entrepreneurship education is any educational activity or program that promotes an understanding of how to start a business. Information on how to start a business is available through trade books, children's books and internet sites. Even Hollywood film and television productions offer stories and information on good and evil entrepreneurs. While information on starting a business is available in many forms, this study focuses on entrepreneurship education that is in some way related to public or private education.

There are eight useful categories to describe entrepreneurship education in the United States: youth or K-12 programs, community colleges, higher education programs, centers for entrepreneurship, MBA programs and course offerings, Ph.D programs, business plan competitions, and non-profit foundations that promote entrepreneurship. Where available, information on the economic impact of specific programs on entrepreneurial activity is provided. Although there is some discussion of the development of specific programs, the objective of this chapter is not to develop a complete historical treatise on the development of entrepreneurship education. The primary objective is to describe the current state of entrepreneurship education in the United States. Entrepreneurship education fosters

entrepreneurial activity among intellectuals by equipping them with the information they need to pursue their dreams.

## **Methodology**

This chapter represents a continuing investigation of the role of higher education in promoting intellectual entrepreneurship and is an expansion of previous efforts. An earlier effort was a content analysis of two years of the *Chronicle of Higher Education*. The result was a summary of innovative programs in entrepreneurship and business education published as a chapter, "Fountains for Intellectual Entrepreneurship," in the 2001 edition of *Knowledge Café for Intellectual Product and Intellectual Capital*.<sup>1</sup> The purpose of this study is to categorize and inventory the extent of programs and activities by institutions of higher learning that promote entrepreneurship. This study is based on two research strategies. Various search engines were used to scan the web to uncover programs and activities in entrepreneurship.<sup>2</sup> And, bibliographic electronic reference programs were used to search academic and non-academic literature on entrepreneurship education.<sup>3</sup>

## **Youth – K-12 Programs**

Programs that promote an understanding of entrepreneurship among young students are relatively new. These programs have not been designed to lure children out of education into the workplace, but to them develop personal habits that enforce healthy self-esteem and goal setting to include acquiring additional education. These entrepreneurship programs are aimed at narrowing the gap in academic abilities among elementary through high school students.

The American public school system spends approximately \$6,000 per student.<sup>4</sup> Some of the highest per capita expenditures occur in public schools that have the worse test scores and highest drop out rates in the nation (Newark, New Jersey and Washington DC). By the fourth grade, two-thirds of American children cannot read at a proficient level, three-fourths cannot

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<sup>1</sup> Stowe, Charles R. B. "Fountains for Intellectual Entrepreneurship" *Knowledge Café for Intellectual Product and Intellectual Capital* edited by Kwiatkowski, Stefan and Stowe, Charles R. B., Leon Kozminski Academy of Entrepreneurship and Management, Warsaw, 2000, pp 395-420.

<sup>2</sup> Of most help were [www.google.com](http://www.google.com), [www.yahoo.com](http://www.yahoo.com), and [www.lycos.com](http://www.lycos.com).

<sup>3</sup> Particularly helpful was Academic Universe (Lexis-Nexus), Business Premiere, Science Direct. All trademarked bibliographic and full text search services. Maymoonah Thai, an MBA candidate, worked on downloading references during the months of January through April 2002.

<sup>4</sup> Bennett, Dr. William E. "The Next Chapter of American Education" *Business Perspectives*, Vol. 13, Issue 3, Spring 2001, p. 26.

write proficiently, and four-fifths are not proficient in mathematics.<sup>5</sup> In the fall of 1995, over one third of entering college freshmen were enrolled in remedial courses. At the other end of the spectrum of quality are the American Ivy League universities which are quite rigorous. To narrow the huge gap in performance between the top and weakest performers, there is an effort to teach entrepreneurship as a means of showing students the relevancy of education and for giving hope to those who may feel disenfranchised from society. There are 54 million school age children in the United States. Unfortunately, only small percentages receive education in entrepreneurship, but the effort is building, thanks to several organizations.

The Ewing Marion Kauffman Foundation's Center for Entrepreneurial Leadership has funded the creation of a curriculum for entrepreneurship education. Marilyn Kourilsky, Vice President of the Kauffman Center for Entrepreneurial Leadership, started writing curriculum in the 1980's. Her curriculum focuses on the concept of entrepreneurship and teaches general behaviors for working and living successfully as well as skills in starting businesses.<sup>6</sup>

Other organizations have published curriculum tools for teaching children entrepreneurship. The *New Youth Entrepreneur* is a program of 12 modules that teach entrepreneurship as a concept. The program walks young students through the steps of starting a business. The curriculum is aimed at upper elementary and middle school students (ages 12 – 17). It is published as a CD-ROM and is available from EDTEC of Camden, New Jersey.<sup>7</sup> Another product directed to elementary school children is YESS!/Mini-society by Marilyn Kourilsky and Sheila Carson. The YESS!/Mini-society package consists of five paperback textbooks and instructor teaching guidelines. It was first published in 1996.

The Consortium for Entrepreneurship Education offers *Program for Acquiring Competence in Entrepreneurship* (PACE) consisting of 21 booklets based on three levels. One set is written for elementary students, another for middle, and another for high school students. For adults ready to start their own business, PACE offers a program on a CDROM.<sup>8</sup>

In 1999, the Global Education Partnership designed a program for middle and high school students called *Open for Business: a Project Based Entrepreneurship and Job Skills Program*. It consists of two units: one that helps students understand the skills needed to start

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<sup>5</sup> *Ibid.*

<sup>6</sup> Brown, Carolyn "Curriculum for Entrepreneurship Education: A Review" CELCEE Digest, December 2000, Report Number CELCEE -00-8.

<sup>7</sup> *Ibid.*

<sup>8</sup> *Ibid.* The Consortium for Entrepreneurship Education is located at 1601 W. Fifth Ave, PMB 199, Columbus, Ohio 43212 or online at <http://www.entre-ed.org/curricul.htm>.

a business, and one that teaches job search and interview skills along with lessons on leadership and responsibility.<sup>9</sup>

Other programs or curriculum include *Growing a Business* by KidsWay Inc., a foundation formed in 1994 that uses entrepreneurship and business education to help ‘at-risk’ children to develop the skills needed to succeed in school as well as enhance their emotional and personal growth. Another product they offer is *Own the Place* which teaches career skills and helps students design a business plan for new ventures.<sup>10</sup>

In 1987, Steve Mariotti (a former business executive and entrepreneur) decided to become a public high school teacher in New York City’s South Bronx district. His school district served a predominately Black and Hispanic (Puerto Rican) community. While teaching, he was brutally attacked by students. Instead of leaving the public school system, Steve decided that a new approach was needed. Combining his business background with his desire to teach at-risk students, Steve discovered that when low-income youth are given the opportunity to learn about entrepreneurship, their innate “street smarts” can develop into “academic smarts” and “business smarts.” He founded the National Foundation for Teaching Entrepreneurship.<sup>11</sup> Steve also recognized that most public school teachers do not have a background in business, so he developed a program to train teachers. Since 1987, his organization has offered entrepreneurship training to over 65,000 low-income students. “Our problem is that there are easily 10 million or more ‘at risk’ students so we have a lot of work ahead of us.”<sup>12</sup>

## **Community Colleges**

Community colleges are different from traditional four year institutions in two basic ways. First, they obtain most of their funding from local property taxes levied by community college districts. This is the same mechanism that funds public K-12 schools in the United States. Community college boards consist of local people to oversee the tax collection and monitor expenditures of community colleges. As a result of locally-elected officials serving on community college boards, local economic realities rank extremely high in setting the educational agenda.

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<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid.* *Own the Place* is published by Start-Up Education, P.O. Box 7072, Pueblo West, Colorado 81007

<sup>11</sup> [www.nfte.com](http://www.nfte.com)

<sup>12</sup> Taken from remarks made by Michael J. Caslin III, CEO of National Foundation for Teaching Entrepreneurship at the Technology Enhanced Entrepreneurship Education Clinic (TE3) held October 10-12, 2002 in Boston, Massachusetts.

A second difference between community colleges and four-year institutions is that community colleges are not limited to academic programs. Traditionally, community colleges were seen as providing ‘vocational’ training to aid local economic development. These vocational programs often incorporate information on starting a small business. There are 1,176 community colleges in the United States, 992 publicly-funded and 148 privately-funded.<sup>13</sup> The majority of community colleges offer courses that include information on starting a business. Some of the community colleges offer courses in small business, business plan writing, or in entrepreneurship. Community colleges have as their mission providing educational opportunities to promote the workforce. The entrepreneurial or small business curriculum is helps individuals create their own small business related to their vocation.

### **Higher Education and Entrepreneurship Courses**

Until 1970, only a few universities offered courses or degrees in entrepreneurship. Probably the best known and earliest course was offered by Harvard University in 1945. The course was designed for returning veterans. By 1970, there were some 16 universities with courses in entrepreneurship. The St. Louis Center for Entrepreneurship and Education lists 223 institutions that offer a major in entrepreneurship or small business.<sup>14</sup> Other studies report that over 400 institutions of higher education offer either a major or minor in entrepreneurship.<sup>15</sup> If one adds community colleges to the mix, there are easily over 1,500 institutions offering either courses in entrepreneurship or courses in small business. The distinction between entrepreneurship and small business courses is that the entrepreneurship courses focus on building companies that will eventually go public and create wealth for their founders. Small business courses tend to focus on creating businesses to provide an income for their owner-operators.

In typical American fashion, there is no government-mandated set of courses or curriculum that constitutes ‘entrepreneurship.’ With each institution subject only to their regional accreditation agency’s criteria for courses, the variety of course titles within the entrepreneurship major is staggering. Some of the more interesting titles include: field projects with venture consulting, venture plan writing, venture finance, entrepreneurship for

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<sup>13</sup> [http://www.aacc.nche.edu/Template.cfm?Section=Statistical\\_Guide&template=ContentManagement/ContentDisplay.cfm&ContentID=8920&InterestCategoryID=244&Name=Statistics&ComingFrom=InterestDisplay](http://www.aacc.nche.edu/Template.cfm?Section=Statistical_Guide&template=ContentManagement/ContentDisplay.cfm&ContentID=8920&InterestCategoryID=244&Name=Statistics&ComingFrom=InterestDisplay) accessed 9/27/02.

<sup>14</sup> [http://eweb.slu.edu/ent\\_college\\_list.htm](http://eweb.slu.edu/ent_college_list.htm) accessed January 14, 2002.

<sup>15</sup> Mangan, Katherine S. “Many Business Schools Add Classes on Entrepreneurship Chronicle of Higher Education, V. 43, N. 20, Jan. 24, 1997, pp A8-A9.

non-business majors, venture opportunity finding/screening, venture marketing, creative thinking, law for entrepreneurs, and street smarts.<sup>16</sup>

Probably the oldest and strongest undergraduate and graduate entrepreneurship program in the United States is Babson College. In 2002, for the sixth consecutive time, *U.S. News & World Report* named Babson College the #1 college for entrepreneurship in the U.S. In 2002, *U.S. News* created a new ranking called "Programs That Really Work," and named Babson 10th in the country. In 2002, *The Wall Street Journal* survey of MBA programs named Babson College the #1 Hidden Gem for the second year in a row. The *Journal* also has ranked Babson #3 in the Entrepreneurship category, behind Stanford and Harvard. According to the survey, Babson students received high marks for entrepreneurial skills and teamwork.<sup>17</sup>

Babson College was founded by an entrepreneur, Roger Babson, in 1919. Born in 1875, he acquired his wealth as an investment banker and founder of the Babson Statistical Organization, a clearinghouse for corporate financial data and economic information. A true renaissance man, Babson founded two other colleges: Webber College in Florida and Utopia College (later named Midwestern Institute) in Eureka, Kansas.<sup>18</sup>

Babson is a relatively small college with only 1,701 undergraduate students and 1,730 graduate students during the school year of 2001-2. More than 40 states and 65 countries are represented on campus. About 19 percent of the undergraduates and 14 percent of the graduate students are from outside the United States.<sup>19</sup> The entire curriculum is oriented to promoting entrepreneurship – the creation and management of new, high growth and innovative organizations. At the MBA level, the institution developed a year round program of learning modules that fit a cycle of creating a new company. Faculty from economics, marketing, law, finance, and management provide short courses on specific topics relating to various stages of setting up a new company. The curriculum completely integrates all the business disciplines into focusing on the creation of a new venture.

St. Louis University's undergraduate program in entrepreneurship, directed by Jerome Katz, was recognized as the U.S. Model Entrepreneurship Program in 1995, and was rated as one of the Top 25 in the country by *Success* Magazine in 1996, 1997 and 1998.<sup>20</sup> *Success* rated the faculty as the best in the nation, noting that many entrepreneurship professors at St. Louis have substantial experience in forming new businesses or in advising them in addition

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<sup>16</sup> Vesper, Karl H. and Gartner, William B. "Measuring Progress in Entrepreneurship Education" *Journal of Business Venturing*, Elsevier Science Inc., Nov. 12, 1997, pp. 403-421.

<sup>17</sup> <http://www2.babson.edu/babson/babsonhpp.nsf/public/homepage> accessed on April 15, 2002.

<sup>18</sup> <http://fusion.babson.edu/html/library/pg.cfm?ID=565> accessed on October 1, 2002.

<sup>19</sup> <http://www2.babson.edu/babson/BabsonHPP.nsf/Public/aboutBabsonglance> accessed on April 15, 2002.

<sup>20</sup> <http://www.slu.edu/eweb/jerome.htm> accessed on October 1, 2002.

to their academic credentials. For example, Dr. Katz is also president of J.A. Katz and Associates, a keiretsu or network organization specializing in consulting to large and small businesses about American entrepreneurs, their firms, and their methods for achieving success. His clients have included Fortune 500 firms.<sup>21</sup>

In 2002, *U.S. News and World Report* rated the following undergraduate programs in entrepreneurship in the top five: Babson College, University of Pennsylvania (Wharton), University of Southern California (Marshall School of Business), Massachusetts Institute of Technology (Sloan), and University of Texas at Austin (McCombs).<sup>22</sup>

Strong entrepreneurship programs are those that have faculty that combine practical experience and active academic research (in the United States, this generally translates to publication in peer-reviewed journals), financial support from local businesses, and an array of course offerings. Entrepreneurship courses help students understand not only the mechanics of forming businesses, but add to their understanding of innovation and technology. Some courses teach strategies for managing extremely high growth organizations.

### **Centers for Entrepreneurship**

Many universities have created “centers” for entrepreneurship. Entrepreneurship centers represent a bridge between academe and the business community. Wealthy entrepreneurs have given millions to universities to create centers in their name. What pyramids were to Egyptian rulers, named centers are to entrepreneurs. Endowing a center at a university is the modern key to immortality!

An investigation of these centers reveals a common menu of activities. Centers provide an infrastructure to enable potential entrepreneurs to network with potential advisers and investors. They provide seminars or forums for prospective entrepreneurs and investors. Many centers organize business plan competitions. Some centers operate business incubators which offer low or free rent and consulting services to promising new ventures in exchange for a percentage of ownership or in the hope of gaining future gifts. Others sponsor non-degree educational programs or provide consulting services to aspiring entrepreneurs. Some centers maintain a library of resources, including but not limited to, books and videotapes.

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<sup>21</sup> *Ibid.*

<sup>22</sup> [http://www.usnews.com/usnews/edu/college/rankings/brief/business/bizspec05\\_brief.php](http://www.usnews.com/usnews/edu/college/rankings/brief/business/bizspec05_brief.php) accessed on October 19, 2002.

Some centers fund faculty efforts to write entrepreneurial case studies for use in courses while others promote academic research by publishing academic journals.

There are so many centers that the Kaufman Foundation funded the creation of the National Consortium of Entrepreneurship Centers. There are over 60 universities that are members, but there are entrepreneurship centers at many more institutions.<sup>23</sup> The consortium has been in existence for five years and sponsors conferences for the directors of entrepreneurship centers for the purpose of “enhancing and fostering improvements in curriculum, research, outreach and programs in entrepreneurship.”<sup>24</sup> Examples of prominent centers and their activities are provided below.

Stanford’s Center for Entrepreneurship web page lists 32 institutions that host centers for entrepreneurship. A study conducted at University of Arizona reported more than 100 active university-based entrepreneurship centers in the U.S. and more than 270 endowed positions in entrepreneurship, an increase of 20 percent in just the last five years.<sup>25</sup>

Edward M. Hufft, Jr. and Kenneth Huggins, two academic researchers at Metropolitan State College in Denver, Colorado developed a list of 2,000 centers for their research study.<sup>26</sup> The list included family business centers (which cater to family-owned and managed businesses), small business institutes (which perform consulting services for businesses that have received loans from the U.S. Small Business Administration), Small Business Development Centers (which are funded by the Small Business Administration to serve local businesses that may not have any loans from the SBA) and entrepreneurship centers (sponsored by universities).

Some Centers pursue research to stimulate innovation or entrepreneurship. The Batten Institute at the Darden School of Management at University of Virginia is one example. They define their activities as follows:

We invest in applied research and knowledge transfer programs about the frontiers of change in organizations, markets, and technologies. We favor pioneering projects, rather than extensions of established work. We expect that our sponsored projects will illuminate the best

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<sup>23</sup> <http://www.nationalconsortium.org/members.html> accessed on April 10, 2002

<sup>24</sup> For a summary of the 1999 conference see:

<http://www.dotcomventuresatl.com/Downloads/KauffmanConference.pdf>. Another source or listing of entrepreneurship centers may be found at: <http://entrepreneurs.about.com/library/centers/blcenters.htm>.

<sup>25</sup> [http://www.bpa.arizona.edu/programs/berger/publications/impact\\_measuring.html](http://www.bpa.arizona.edu/programs/berger/publications/impact_measuring.html)

<sup>26</sup> [http://216.239.51.100/search?q=cache:q\\_RUWOHRBiEC:](http://216.239.51.100/search?q=cache:q_RUWOHRBiEC:) accessed on April 15, 2002.

[www.usasbe.org/conferences/2000/00percent2520Papers/hufft.pdf+entrepreneurship+centers&hl=en&ie=UTF-8](http://www.usasbe.org/conferences/2000/00percent2520Papers/hufft.pdf+entrepreneurship+centers&hl=en&ie=UTF-8)

practices of agents of change such as entrepreneurs, transformational leaders, inventors, demanding customers, risk capital investors, and thought-leading educators.<sup>27</sup>

Among their activities is the publication of the *Journal of Business Venturing*, a peer-reviewed scholarly journal, the publication of faculty ‘working papers’ on research in entrepreneurship, and sponsorship of academic conferences at the university.<sup>28</sup>

The MIT Entrepreneurship Center expresses their mission as training “men and women to make high tech, start up companies successful.”<sup>29</sup> MIT traces its involvement in entrepreneurship back to the founding of Arthur D. Little (a management consulting firm) in 1886. MIT alumni founded companies such as Genentech, Gillette, Hewlett-Packard, Teradyne, and Raytheon. These companies helped launch new industries for America. The MIT Technology Licensing Office (TLO) has more than 1,000 issued U.S. patents in its portfolio, many with foreign counterparts. Each year, the TLO annually grants as many as 60-80 licensing agreements. MIT and Harvard founded the first modern venture capital company, American Research and Development (ARD), in 1946. A 1997 study indicated that MIT alumni are responsible for the creation of over 5,000 companies employing 1.1 million and having sales of \$232 billion.<sup>30</sup>

While MIT’s Institute for Entrepreneurship offered their first entrepreneurship course in the 1960s, the Center was not formed until 1996 with a grant from the Kaufman Foundation.<sup>31</sup> The Center brings in successful entrepreneurs as Senior Lecturers where they give aspiring engineers, scientists and management students practical advice. The Center sponsors a course called E-Lab in which students work one day a week in a high technology, start-up company. G-Lab is a similar course involving companies outside the United States. The Center currently has 17 professors and 16 practitioners teaching more than 30 sections of entrepreneurship courses to over 1,300 graduate and undergraduate students from management, engineering, science, and other departments.<sup>32</sup>

Stanford University also started a Center for Entrepreneurship in 1966. It sponsors research, coursework and business plan competitions. Because there are so many individuals and organizations interested in forming high technology start-up companies, Stanford has a program called the Stanford Entrepreneurial Network. This organization’s mission is to create a forum among all the entrepreneurial activities and centers at Stanford. They sponsor

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<sup>27</sup> [http://www.darden.edu/Batten/bto\\_overview\\_wwd.htm](http://www.darden.edu/Batten/bto_overview_wwd.htm) accessed on April 15, 2002.

<sup>28</sup> [http://www.darden.edu/Batten/btr\\_jrnl\\_bus\\_venturing.htm](http://www.darden.edu/Batten/btr_jrnl_bus_venturing.htm) accessed on April 15, 2002.

<sup>29</sup> <http://entrepreneurship.mit.edu/> accessed on October 15, 2002.

<sup>30</sup> [http://entrepreneurship.mit.edu/entre\\_at\\_mit.php](http://entrepreneurship.mit.edu/entre_at_mit.php) accessed on October 15, 2002.

<sup>31</sup> [http://entrepreneurship.mit.edu/history\\_ecenter.php](http://entrepreneurship.mit.edu/history_ecenter.php) accessed on October 15, 2002.

<sup>32</sup> [http://entrepreneurship.mit.edu/enrollment\\_stats.php](http://entrepreneurship.mit.edu/enrollment_stats.php) accessed on October 15, 2002.

conferences for the Stanford School of Engineering, School of Law, Business Center for Entrepreneurial Studies, Stanford's Office of Technology and Licensing, and the Graduate School of Medicine, etc.<sup>33</sup> They cite as their mission "research, curriculum development, community outreach, and student programs."<sup>34</sup> The Stanford Center sponsors a program that provides graduate students of business the opportunity to serve as consultants for high technology start-up companies. In 2001, the Center received 100 requests from companies located throughout the United States.<sup>35</sup>

The John F. Baugh Center for Entrepreneurship at Baylor University in Waco, Texas is an example of a center named after its benefactor who was a successful entrepreneur. Baylor claims that its center established the first non-government funded innovation evaluation computer program in the U.S. in 1981.<sup>36</sup> The computer program provides inventors with an evaluation of the potential for commercialization based on 33 factors.<sup>37</sup> Since its inception, Baylor has evaluated some 1,500 businesses. Since 1987, the center has sponsored an Institute for Family Business that focuses on the problem of generational transfer.<sup>38</sup> Baylor publishes the *Journal of Entrepreneurship Theory and Practice*, the official journal of the United States Association for Small Business and Entrepreneurship (USASBE).<sup>39</sup> Baylor offers a non-degree program called Fast Trac Entrepreneurial Training program for local entrepreneurs.<sup>40</sup>

The Karl Eller Center at the University of Arizona and its Berger Entrepreneurship Program were created in 1984. A 2000 study underwritten by the Kauffman Center for Entrepreneurial Leadership noted that the Berger Entrepreneurship Program had resulted in more alumni starting new businesses, developing new products and more likely to be involved in high-technology endeavors than programs at competing, peer institutions.<sup>41</sup> A study by two researchers of the impact of the Eller College of Business and Public Administration and the Berger Entrepreneurship Program revealed a startling comparison between business school graduates and those who were graduates of the Berger Entrepreneurship program. The survey of 2,484 alumni revealed that entrepreneurship graduates were: three times as likely to start their own businesses, three times more likely to

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<sup>33</sup> <http://www.stanford.edu/group/eship/> accessed on October 15, 2002.

<sup>34</sup> <http://www.gsb.stanford.edu/ces/about.html> accessed on October 15, 2002.

<sup>35</sup> <http://gobi.stanford.edu/studentprojects/index.html> accessed on October 15, 2002.

<sup>36</sup> <http://business.baylor.edu/entrepreneur/default.aspx?pageID=247> accessed on October 15, 2002.

<sup>37</sup> <http://business.baylor.edu/entrepreneur/default.aspx?pageID=247> accessed on October 15, 2002.

<sup>38</sup> <http://business.baylor.edu/entrepreneur/default.aspx?pageID=256> accessed on October 15, 2002.

<sup>39</sup> <http://business.baylor.edu/entrepreneur/default.aspx?pageID=241> accessed on October 15, 2002.

<sup>40</sup> <http://business.baylor.edu/entrepreneur/default.aspx?pageID=252> accessed on October 15, 2002.

<sup>41</sup> <http://www.bpa.arizona.edu/programs/berger/about/history.html> accessed on October 15, 2002.

be self-employed, had annual incomes 27 per cent higher, and owned 62 percent more assets than regular business majors!<sup>42</sup>

The Forum for Entrepreneurship and Education is an example of a center that is not sponsored by a college of business. The Forum which promotes entrepreneurship education for public school teachers is hosted by Vanderbilt University's Peabody College of Education and Human Development. Their statement of beliefs reads: "we believe... schools should teach about uncertainty, helping students learn how to deal with ambiguity and how to manage chaos... we need to develop citizens who will 'make jobs instead of take jobs.'"<sup>43</sup> Their mission is to impact education from kindergarten through graduate level collegiate studies and into adult education.<sup>44</sup> They offer seminars in entrepreneurship, creative thinking, business planning, venture funding development, curriculum development, and programs for public school entrepreneurship teachers. They also conduct research on new and innovative ventures that will impact twenty-first-century living.<sup>45</sup>

While no two centers are exactly alike, one can draw some conclusions as to some of the basic programs they offer. In terms of curriculum, entrepreneurship centers serve to draw entrepreneurs into the classroom either as coaches or as lecturers. In terms of student activities, centers may sponsor business plan competitions, place students to work as consultants in start up firms, or sponsor social activities so that students can meet entrepreneurs, lawyers, accountants and those involved in finance (bankers, venture capitalists, and 'angel' investors). Many centers offer non-degree programs. Centers serve to bridge the gap between engineering, law, or medical schools to promote entrepreneurial activity. Some research institutions sponsor centers to promote the commercialization of research. Others promote intellectual inquiry into the field of entrepreneurship which may include publication of research journals. Through a diversity of activities, entrepreneurship centers attract and foster networks of intellectuals interested in starting new enterprises.

## **MBA and Entrepreneurship**

At the graduate level, entrepreneurship has become an 'area of concentration' or minor within the MBA degree. And this is not limited to relatively unknown programs. *All Business*

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<sup>42</sup> Charney, Alberta and Libecap, Gary D. "Impact of Entrepreneurship Education" Insights, Kauffman Foundation at [http://www.entreworld.org/Bookstore/Product.cfm?DID=6&Product\\_ID=62&CATID=22](http://www.entreworld.org/Bookstore/Product.cfm?DID=6&Product_ID=62&CATID=22).

<sup>43</sup> <http://entrepreneurship.vanderbilt.edu/admin.htm> accessed on October 15, 2002.

<sup>44</sup> *Ibid.*

<sup>45</sup> *Ibid.*

*Schools*, a complete online guide to business education, lists 27 MBA programs with entrepreneurship concentrations.<sup>46</sup> According to this author's research on the internet, there are 90 MBA programs in the United States that offer entrepreneurship courses. Some of these are described below.

The Massachusetts Institute of Technology, Sloan School of Management boasts: "The study and practice of entrepreneurship are central to Sloan's culture, and have been a part of the Sloan curriculum for more than 40 years. Two of our MBA Program management tracks—eBusiness, and New Product and Venture Development—are devoted to it. This pervasive vision also influences countless other aspects of life at Sloan."<sup>47</sup>

Entrepreneurship courses at the graduate level may be found all over the United States and enrollments are increasing. The University of Maryland online MBA program offers an MBA seminar course on "The Marketing of New Ideas."<sup>48</sup> At Northwestern's Kellogg School, near Chicago, nearly a third of the students entering the MBA program in 1996, stated they would take entrepreneurship courses. DePaul University's graduate entrepreneurship program has risen 20 percent a year. In 1997, they had 106 students. Currently, more than 65 percent of MBAs attending the Leeds School of Management at the University of Colorado in Boulder have entrepreneurship as a concentration. More than 700 undergraduate and graduate students are enrolled in entrepreneurship courses annually.<sup>49</sup> The University of Indiana's Johnson Center for Entrepreneurship offers an MBA curriculum with a choice of eight courses.<sup>50</sup> The University of Arizona's Berger Entrepreneurship Program, previously mentioned, prepares students for success as entrepreneurs.<sup>51</sup>

The New York University's Leonard N. Stern School of Business offers an Entrepreneurship and Innovation Area as an MBA second major. Students completing co-major requirements are also eligible for the Harold Price Award given at pre-commencement. "The Harold Price Entrepreneurship Award is given annually at Pre-commencement to a graduating student pursuing an entrepreneurial career who has attained outstanding achievement in entrepreneurship studies and student leadership, and who intends to initiate or participate in founding a new enterprise after graduating."<sup>52</sup>

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<sup>46</sup> [www.allbusinessschools.com](http://www.allbusinessschools.com) accessed on October 7, 2002.

<sup>47</sup> <http://mitsloan.mit.edu/mba/academics/entrepreneurship.php> accessed on October 7, 2002.

<sup>48</sup> <http://www.umuc.edu/grad/mba/ambacat.html> accessed on October 7, 2002.

<sup>49</sup> <http://leeds.colorado.edu/entrep/> accessed on October 7, 2002.

<sup>50</sup> [http://www.bus.indiana.edu/jcei/student/mba\\_curriculum.html](http://www.bus.indiana.edu/jcei/student/mba_curriculum.html) accessed on October 7, 2002.

<sup>51</sup> [http://www.bpa.arizona.edu/programs/berger/academic/mba\\_overview.html](http://www.bpa.arizona.edu/programs/berger/academic/mba_overview.html) accessed on October 7, 2002.

<sup>52</sup> <http://www.stern.nyu.edu/ei/bces/studentprograms/fellowships.html> accessed on October 7, 2002.

Rensselaer Polytechnic Institute started their entrepreneurship curriculum in 1985. Today they offer a graduate entrepreneurship program consisting of three specific entrepreneurship courses.<sup>53</sup> In 2001, they launched a program directed at all their undergraduates titled “Discovering Your Entrepreneurial Potential.”<sup>54</sup>

The David Eccles School of Business at the University of Utah offers an MBA entrepreneurship program which they describe as providing entrepreneurial management for emerging, technology-intensive industries. The program consists of 12 credit hours: three required core courses beyond the general MBA core and selection of a minimum of one elective course from a list of selected course offerings. The university explains their reasoning for their entrepreneurship concentration by noting that “Recent initiatives in the university, in the local business community, and by the state government all indicate that Utah has a large store of emerging technology, has a rapidly building supply of capital, but has a significant shortage of trained and experienced managers for high growth, technology-intensive firms. This program is intended to address specifically this need in the local business community.”<sup>55</sup>

The University of Illinois offers an MBA concentration designed to appeal to those who have engineering undergraduate degrees. The concentration is built on specialized courses in entrepreneurship and technology commercialization. The University claims that: “Students who complete these courses find themselves with a distinctive set of skills and knowledge that positions them well to excel in new venture-oriented projects.”<sup>56</sup> It should not be surprising that the University of California at Berkeley located at the edge of ‘Silicon Valley’ offers MBA studies in entrepreneurship which they claim is booming.<sup>57</sup> The Haas School of Management started a business incubator in 1997. The incubator is located across the street from campus and offers space for up to eight startups launched by Haas students and alumni.<sup>58</sup> Stanford University’s MBA also offers a concentration in entrepreneurship.<sup>59</sup>

Another high technology site is Austin, home of the University of Texas. The McCombs School of Business and the Austin community offer their MBA students a variety of useful resources. The Herb Kelleher Center for Entrepreneurship is dedicated to funding teaching, research, and community outreach related to entrepreneurship. The Hicks, Muse,

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<sup>53</sup> <http://scte.mgmt.rpi.edu/education.html> accessed on October 7, 2002.

<sup>54</sup> *Ibid.*

<sup>55</sup> <http://www.business.utah.edu/masters/programs/emphases/eeb.shtml> accessed on October 7, 2002.

<sup>56</sup> <http://www.mba.uiuc.edu/business/osbi/entrepreneurship.php> accessed on October 7, 2002.

<sup>57</sup> <http://www.haas.berkeley.edu/EWMBA/programguide/entrep/more.htm> accessed on October 7, 2002.

<sup>58</sup> <http://www.haas.berkeley.edu/EWMBA/programguide/entrep/more.htm> accessed on October 7, 2002.

<sup>59</sup> [http://www.gsb.stanford.edu/mba/learning/curriculum/elect\\_entrepreneur.html](http://www.gsb.stanford.edu/mba/learning/curriculum/elect_entrepreneur.html) accessed on October 7, 2002.

Tata & Furst Center for Private Equity Finance offers advice on financing. The Austin Technology Incubator focuses on high-technology start-ups. The Capital Network matches investors with growing companies. The IC2 Institute is an international think-tank for entrepreneurship.<sup>60</sup>

The Illinois Institute of Technology boasts an ambitious goal for their MBA/entrepreneurship program: "...to prepare each student to start up a venture within 12 months of graduation."<sup>61</sup>

The Zicklen School of Management at the City of New York University offers an MBA in Management/Entrepreneurship and Small Business Management. The sub-specialization in Entrepreneurship and Small Business Management is designed to meet the needs of students who have backgrounds in entrepreneurial ventures, are part of family businesses, or are interested in starting their own businesses. The program is interdisciplinary and includes courses in management, accountancy, economics/finance, marketing, and computer information systems.<sup>62</sup> Zicklen is the largest collegiate school of business in the nation and the only CUNY unit that offers business programs accredited by the AACSB-International Association for Management Education.<sup>63</sup>

The University of Wisconsin – Madison offers an MBA concentration in entrepreneurship.<sup>64</sup> At Georgia State University, MBA students are required to have a minimum of 12 semester hours or four courses for the concentration. Students must take Entrepreneurship and Enterprise, and Field Study in Entrepreneurship. They then must select either Business Plan Development or Venture Creation in Electronic Commerce. And, they must take one from the following offerings: Negotiation and Dispute Resolution, International Entrepreneurship, Technology and Global Competition, Enhancing Leadership Skills, or Competitor Analysis.<sup>65</sup>

The University of Arizona claims they have the first MBA program to require courses in entrepreneurship for all graduate business students. The University claims that "this emphasis reflects the importance of risk taking and entrepreneurship in the American economy." The entrepreneurship course is a two hour credit course that meets once a week during each semester over a two semester period. It is designed to provide students with an

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<sup>60</sup> <http://texasmba.bus.utexas.edu/students/academics/special/specmgent.asp> accessed on October 7, 2002.

<sup>61</sup> <http://www.stuart.iit.edu/pgms/entrepreneur/> accessed on October 7, 2002.

<sup>62</sup> <http://zicklin.baruch.cuny.edu/programs/mba/spec/entrepreneurship.html> accessed on October 7, 2002.

<sup>63</sup> [http://zicklin.baruch.cuny.edu/about/about\\_home.html](http://zicklin.baruch.cuny.edu/about/about_home.html) accessed on October 7, 2002.

<sup>64</sup> <http://www.bus.wisc.edu/weinertcenter/teaching/mbadegreeinfo.html> accessed on October 7, 2002.

<sup>65</sup> <http://www.cba.gsu.edu/rec/mbaconcentration.html> accessed on October 7, 2002.

overview of key business requirements necessary for a successful venture. The MBA students may elect a concentration in entrepreneurship.<sup>66</sup>

The University of North Carolina at Chapel Hill offers an MBA concentration in entrepreneurship permitting students to select from some 20 courses spanning all disciplines of business. “Much of the curriculum is taught by practicing entrepreneurs, venture capitalists, venture lawyers and others who have the most current and relevant perspective on the entrepreneurial experience.”<sup>67</sup> They list 12 full time faculty and adjunct faculty.<sup>68</sup>

The list of MBA programs offering entrepreneurship courses or concentrations is not limited to large institutions. For example, Suffolk University in Boston, Massachusetts offers an entrepreneurship area for their MBAs. They describe their program as “one for people with an interest in starting a business or for those wishing to join one of the non-traditional, innovative ‘growth’ companies that abound in today’s marketplace.”<sup>69</sup> The Indiana Institute of Technology offers an MBA with an entrepreneurship concentration. The university describes itself as a “small, private independent university specializing in providing quality undergraduate education in Engineering, Computer Science and Business.”<sup>70</sup> Indiana Tech also offers adult education programs and degrees. Effective April 2002, Nova Southeastern University of Fort Lauderdale, Florida offers an MBA with a concentration in Entrepreneurship. The concentration consists of courses titled: Entrepreneurship Law and Ethics, Delivering Superior Customer Value, Venture Initiation, Entrepreneurial Finance, Entrepreneurial Management, and International Trade for Entrepreneurs. The Huizenga School Advisory Board consisting of successful entrepreneurs was active in the design of the program.<sup>72</sup>

## **Ph.D Programs in Entrepreneurship**

It is now possible to earn a Ph.D in entrepreneurship. According to a 1998 study by Dr. Jerome Katz of St. Louis University, the following institutions offer doctoral programs specifically in entrepreneurship: University of Georgia, University of Indiana, and

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<sup>66</sup> Wysiyg://17/http://www.bpa.Arizona.edu/programs/berger/about/mba/html accessed on October 7, 2002.

<sup>67</sup> Wysiyg://26/http://www.cetv.ujnc.edu/CET...icul/cetv\_entrepreneurship\_curricul.html accessed on October 7, 2002.

<sup>68</sup> *Ibid.*

<sup>69</sup> [http://www.thesawyerschool.com/mba\\_entrep.htm](http://www.thesawyerschool.com/mba_entrep.htm) accessed on October 7, 2002.

<sup>70</sup> <http://www.indtech.edu/About/> accessed on October 7, 2002.

<sup>71</sup> <http://www.indtech.edu/About/> accessed on October 7, 2002.

<sup>72</sup> <http://www.huizenga.nova.edu/Entrepreneurship/pressrelease.cf> accessed on October 7, 2002.

Wharton.<sup>73</sup> Other institutions offer Ph.Ds in conventional areas of business but provide concentrations or research areas in entrepreneurship. These institutions include: Boston University, University of Colorado at Boulder, Georgia Tech, Harvard, University of Houston, University of Maryland, University of Minnesota, Mississippi State, New York University, University of North Carolina, Penn State, Purdue University, Rutgers University, St. Louis University, University of South Carolina, State University of New York – Buffalo, University of Tennessee, Texas A& M University, Texas Tech University, University of Southern California, and University of Wisconsin at Madison.<sup>74</sup>

My investigation revealed additional Ph.D programs in which entrepreneurship is now part of the title or is an area of concentration within a traditional management field. For example, the University of Washington currently offers a Ph.D in Technology Entrepreneurship, a minor in technology entrepreneurship for doctoral students outside the business school, and a certificate program or credential in technology entrepreneurship for undergraduates and MBA students.<sup>75</sup> The Weatherhead School of Management at Case Western Reserve offers a Ph.D in Entrepreneurship.<sup>76</sup> Ohio State University offers a Ph.D in Strategic Management and Entrepreneurship. The Massachusetts Institute of Technology Sloan School of Management offers a Ph.D program in Management Science which can include a concentration in behavioral sciences and the management of technological innovation and entrepreneurship.<sup>77</sup> While Stanford University does not offer a Ph.D in entrepreneurship, they do sponsor the Center for Entrepreneurial Studies. The Center encourages rigorous and relevant research on issues related to entrepreneurship by providing logistical and financial support to faculty and students including Ph.D students.<sup>78</sup>

## **Business Plan Competitions**

Business plan competitions fuel interest in entrepreneurship. The basic aim of business plan competitions is to stimulate students and local citizens into putting their ideas into concrete plans for new businesses. Usually, a panel of university business professors and professionals including bankers, lawyers and accountants, and local successful business owners agree to evaluate the business plans. Judges select the best plan on the basis of the

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<sup>73</sup> <http://eweb.slu.edu/phdlist.htm> accessed on April 10, 2002.

<sup>74</sup> *Ibid.*

<sup>75</sup> [http://depts.washington.edu/cte/CTE\\_Educational\\_PhD\\_Requirements.shtml](http://depts.washington.edu/cte/CTE_Educational_PhD_Requirements.shtml)

<sup>76</sup> [http://www.weatherhead.cwru.edu/degree/phd\\_mgmt/todelete/entrpnr.html](http://www.weatherhead.cwru.edu/degree/phd_mgmt/todelete/entrpnr.html)

<sup>77</sup> <http://mitsloan.mit.edu/phd/paths.html> accessed on April 7, 2002.

<sup>78</sup> <http://www.gsb.stanford.edu/ces/research.html> accessed on April 10, 2002.

likelihood the business would be successful, the amount of research presented in the plan, and the overall organization of the plan. Some of the winners actually use their winnings to fund their business. Other winners use the money to continue their education.

MIT's Sloan School of Management conducts a National New Venture Business Plan Competition and awards up to \$50,000 seed money to winning entries. "This competition, cited by *Newsweek* as the nation's premier business-plan competition, is the flagship entrepreneurial student activity at MIT. More than 200 teams competed in 2000. Nearly 60 companies have been launched by entry teams since the founding of the competition in 1990."<sup>79</sup> Sloan is one among many institutions that offer business plan competitions. Yale University offers a \$50,000 business plan competition. The competition is sponsored by the Yale Entrepreneurial Society which is part of the Yale School of Management.<sup>80</sup> The University of California launched a business plan competition in 1999. Teams compete for more than \$50,000 in cash and prizes.<sup>81</sup> Private universities also offer business plan competitions.

In 2000, Robert Motion co-founded an MBA student entrepreneurship club at Southern Methodist University in Dallas, Texas. Like many private universities, a small portion of SMU's endowment is allocated for venture capital investments. Motion took an independent study course to conduct research of university venture funds across the United States. In the end, he recommended increased student involvement in Cox's Venture Capital Fund.<sup>82</sup> The Cox Venture Capital Fund was organized to invest a small portion of the endowment funds of Southern Methodist University into promising, high growth companies.

There is at least one business plan competition per state and many of the larger states have several competitions. Prize money ranges from \$5,000 to \$25,000 for the first place winner. Some competitions claim that the winning plans get exposure to real venture capitalists who serve as judges. Some of these competitions include: San Diego State University Venture Challenge, Carrot Capital Business Plan Challenge, MBA Jungle Business Plan Challenge, National Social Venture Capital Competition, MOOTCORP® competition, Babcock Elevator Pitch Competition, and Venture Capital Investment Competition.<sup>83</sup>

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<sup>79</sup> *Ibid.*

<sup>80</sup> <http://www.mba.yale.edu/it/it.html> accessed on October 7, 2002.

<sup>81</sup> <http://www.haas.berkeley.edu/EWMBA/programguide/entrep/more.htm> accessed on October 7, 2002.

<sup>82</sup> [http://news.cox.smu.edu/pressroom/pressreleases/05\\_14\\_02\\_motion.html](http://news.cox.smu.edu/pressroom/pressreleases/05_14_02_motion.html) accessed October 7, 2002.

<sup>83</sup> [http://www.cetv.unc.edu/CETV\\_Business\\_Plan\\_Comps/cetv\\_business\\_plan\\_comps.html](http://www.cetv.unc.edu/CETV_Business_Plan_Comps/cetv_business_plan_comps.html) accessed October 2, 2002.

*INC* magazine found that seven institutions offer \$143,200 annually in business plan prize money and that since 1996, 72 companies had been formed as revealed by their table below.<sup>84</sup>

Institution	Total Annual Prize Money	# of Companies Launched since 1996
MIT*	\$50,000	20
University of Texas (Austin)*	\$18,000	15
Harvard University	\$25,000	12
University of Arizona	\$52,000	11
University of Oregon*	\$14,000	6
University of Chicago	\$30,000	5
University of Georgia	\$10,000	3

\* Hosts intercollegiate competition

The above list is only a sampling of business plan competitions in the United States. In 2002, the Center for Entrepreneurship at the University of Washington Business School hosted 52 teams (202 students) from six Washington universities. The Center provided more than \$75,000 in prize money and nearly \$32,000 in pro bono legal services to the winning teams.<sup>85</sup> Even though 50 fewer business plans were submitted in 2001, Stanford University's E-Challenge expects to award \$75,000 in prize money to five or six teams, up from \$60,000 among seven teams in 2001. "Somehow the gene pool's getting stronger," says Tom Kosnick, who runs the E-Challenge.<sup>86</sup> In 1998, San Diego State University sponsored a business plan competition that involved 50 submissions from over 700 MBA students enrolled in their program.<sup>87</sup>

While some of the business plan competitions are sponsored by a particular university, some business plan competitions represent a collaborative effort to foster local economic development. One example is taken from Pittsburgh, Pennsylvania. Several universities and businesses formed EnterPriz which awards \$115,000 in prize money. The group describes their goal as: "The primary aim for the competition is to increase the number of start-up businesses in Pittsburgh. Statistics show that start-ups are the largest driver of new jobs in metro areas. ... In the long term, this competition is intended to create an entrepreneurial buzz about Pittsburgh, which will compel start-ups to build businesses here; attract and retain

<sup>84</sup> [http://www.inc.com/articles/biz\\_online/do\\_biz\\_online/biz\\_models/1049-print.html](http://www.inc.com/articles/biz_online/do_biz_online/biz_models/1049-print.html) accessed October 1, 2002.

<sup>85</sup> [http://depts.washington.edu/cte/CTE\\_BPC\\_Overview\\_Short.shtml](http://depts.washington.edu/cte/CTE_BPC_Overview_Short.shtml)

<sup>86</sup> <http://www.careerjournal.com/specialreports/bschoolguide/20010430-nieland-fever.html>

<sup>87</sup> "Spawning Start Ups at San Diego State" *Inc.* Vol. 20, Issue 18, Dec 1998.

managerial talent; and establish local universities as hotbeds of entrepreneurship.”<sup>88</sup> In only three years of conducting the business plan competition, 18 companies were created.<sup>89</sup>

In 2001, over \$3 million of prize money and over 55 institutions were involved in sponsoring competitions. The survey was based on using internet search engines to identify business plan competitions and then going to the web sites of each. Not all the web sites provided information on the total number of business plans submitted or the total number of student competitors. But, it is apparent that this type of activity involves significant numbers of potential entrepreneurs vying to attract the attention of potential investors.

### **Foundation Support for Education in Entrepreneurship and Other Non-Profits**

The largest foundation in the world dedicated to promoting entrepreneurship is the Ewing Marion Kauffman Foundation. The foundation was created in 1986 but was fully funded after Ewing Kauffman died in 1993.<sup>90</sup> The Foundation’s web page states: “In 1950, following service in the Navy during World War II and several years as a pharmaceutical salesman, Ewing Kauffman founded Marion Laboratories Inc. By 1989, the company was sold to Merrell Dow, it had become a global diversified pharmaceutical giant with annual sales of nearly \$1 billion.”<sup>91</sup>

By the end of 2000, the value of the foundation exceeded \$2 billion.<sup>92</sup> The foundation only gives grants for use in the United States. It is divided into two divisions: Youth Development and Entrepreneurial Leadership.

The Youth Development work focuses primarily on programs in the Kansas City’s bi-state urban core communities. The Foundation supports programs that promote children’s development by funding and providing technical assistance to build quality programs and services in the areas of family support, early childhood care and education, urban K-12 education, out-of-school activities and neighborhood development. Youth Development grants are designed to nurture healthy families, create safe and healthy neighborhoods and advance educational achievement.<sup>93</sup>

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<sup>88</sup> <http://www.enterprizepgh.org/overview/index.html> accessed on April 10, 2002.

<sup>89</sup> <http://www.enterprizepgh.com/> accessed on April 10, 2002.

<sup>90</sup> <http://www.emkf.org/pages/33.cfm> accessed on April 10, 2002.

<sup>91</sup> *Ibid.*

<sup>92</sup> <http://www.emkf.org/pages/50.cfm> and confirmed by remarks of Dean of Babson College made to Technology Enhanced Teaching Entrepreneurship TE3 conference in Boston, Mass. October 10-12, 2002.

<sup>93</sup> <http://www.emkf.org/pages/50.cfm> accessed on April 10, 2002.

The Kauffman Center for Entrepreneurial Leadership operates programs and makes grants to help create an entrepreneurial society. The Center also helps nonprofit organizations and communities learn to apply entrepreneurial practices to build stronger and more vibrant organizations.<sup>94</sup> According to their *Annual Grant Making Report* they donated over \$100 million in 2002.

Kauffman Fund supports research in entrepreneurship, student internship programs, conferences, scholarships for at-risk students to attend summer camps on entrepreneurship, and funding for teachers to learn how to teach entrepreneurship from elementary through college level. The fund supports centers that provide counseling and advice to underserved entrepreneurs.<sup>95</sup>

The Price Institute, funded by the Price Foundation, provides nearly eighty percent of the funding required for an annual program called SEE – Symposium for Entrepreneurship Education hosted by Babson College. This conference trains college professors on how to use the case method and entrepreneurs to teach entrepreneurship. Started in 1984, the program has trained hundreds of college professors and is open to professors outside the United States. Annually, one professor is selected for the highly prestigious Edwin Appel Award.<sup>96</sup>

“One of our shining examples is the SEE program. That program gives us involves tremendous leverage and exposure to the education community.” noted Tim Jones, President of the Price Foundation and Vice President of the Price Institute.<sup>97</sup> Father and son, Louis and Harold Price, established the foundation in 1951. According to the foundation’s web page, Louis was a founding partner of the Joe Lowe Corporation, a bakery and ice cream supply business which became famous for the promotion of the popsicle. Harold joined the Joe Lowe Corporation in 1928. He rose through the ranks to the position of Executive Vice President, and was responsible for the successful merger in 1965 that resulted in the Sara Lee Corporation. Through shareholdings in Sara Lee Corporation, Louis and Harold funded their foundation and guided its existence for many years as respective Presidents.”<sup>98</sup>

In 1979, Harold established the Price Institute for Entrepreneurial Studies with the objective of furthering the understanding of the entrepreneurial process and stimulating MBA Programs and curricula development to encourage and support those students with entrepreneurial aspirations. The Harold Price Foundation has between \$80 and \$100 million

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<sup>94</sup> *Ibid.*

<sup>95</sup> [www.emkf.org/pages/241.cfm](http://www.emkf.org/pages/241.cfm) accessed on April 10, 2002.

<sup>96</sup> The co-editor of this book, Prof. Dr. Hab. Stefan Kwiatkowski received the award in 1998.

<sup>97</sup> Telephone interview with Mr. Tim Jones on October 22, 2002.

<sup>98</sup> <http://www.pricefoundation.org/history.htm>

in assets, meaning the foundation distributes between \$3.5 and \$4.5 million per year. The Institute obtains about half of that fund for the promotion of entrepreneurship education.

The Price Institute also supports local Centers of Entrepreneurship at NYU, University of Colorado, UCLA, UC Berkley and Stanford. Their support is not restricted to a project but is used for general operating funds. “We also have a small fellowship program which we run through six to eight different universities: including USC, George Washington, Wake Forest and Wharton.” added Tim Jones, President, President, Price Foundation and Vice President of the Price Institute.<sup>99</sup> The Institute helped fund a Center of Entrepreneurship for the College of Music at University of Colorado. “With less than one percent being able to earn a living with a symphony, the center helps musicians understand the process of setting up home-based music education/teaching.”<sup>100</sup> In the future, the institute may focus more of its funding toward entrepreneurial philanthropy and educational programs aimed at disadvantaged children according to Jones.<sup>101</sup>

There are at least 165 non-profit organizations that in some way promote entrepreneurship education and research.<sup>102</sup> One example is the Center for Women’s Business Research, a non-profit research institute which sponsors research on women business owners and their firms worldwide.<sup>103</sup> Among the 165 organizations are local economic development centers which offer assistance and training to aspiring entrepreneurs. Other non-profits promote entrepreneurship in schools, or are focused on particular segments of society such as offering entrepreneurship courses for low income, rural community, disabled or minority entrepreneurs.

There are a large number of organizations whose main mission may not be the promotion of entrepreneurship but whose activities include such education. The Girl Scouts of the U.S.A., for example, have some districts that sponsor “up-start” programs or camps on how to start a business. The Girl Scouts are known for selling cookies to raise funds. This selling experience is a key component of entrepreneurship. The United States Junior Chamber of Commerce (Jaycees) was established in the 1920s to “develop personal and leadership skills through service to others...” The Jaycees raise millions of dollars per year

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<sup>99</sup> Telephone interview with Mr. Tim Jones, President, Price Foundation and Vice President of the Price Institute on October 22, 2002

<sup>100</sup> *Ibid.*

<sup>101</sup> *Ibid.*

<sup>102</sup> [www.guidestar.org](http://www.guidestar.org) provides a database of philanthropic foundations and organizations in the United States. A search under ‘entrepreneurship’ revealed 165 organizations.

<sup>103</sup> <http://www.guidestar.org/servlet/SearchServlet> accessed on October 10, 2002

for such causes as Muscular Dystrophy Association and the March of Dimes.<sup>104</sup> They also offer a seven-part program that gives participants the basic skills and knowledge to start a small business.<sup>105</sup> While not exclusively directed toward ‘intellectual’ entrepreneurs, these organizations expose thousands of participants to the basics of starting a business.

Another major sponsor of entrepreneurship programs is the Coleman Foundation located in Chicago, Illinois. Founded in 1951, the Coleman Foundation supports the Institute for Entrepreneurial Studies which was organized in 1982 at the University of Illinois in Chicago. The Institute sponsors a Hall of Entrepreneurs program which recognizes local entrepreneurs, sponsors research conferences for academicians, publishes a newsletter, and offers courses in entrepreneurship.<sup>106</sup> The Coleman Foundation has funded chairs in entrepreneurship at eleven institutions of higher education.<sup>107</sup> Since 1981, the Coleman Foundation has granted over \$24 million to support educational and community programs promoting entrepreneurship awareness.<sup>108</sup> The Coleman Foundation has decided to employ the U.S. Association for Small Business and Entrepreneurship, a non-profit organization, to distribute their grants for educational programs.<sup>109</sup>

The Young Entrepreneurs’ Organization (YEO) is a volunteer group of business professionals, all of whom are under 40 years of age and are the owners, founders, cofounders or controlling shareholders of companies with annual sales of \$1 million or more. YEO has 2,400 members in 94 chapters around the world. One of their most popular activities is “Forum” in which members get together for confidential discussions on how they can better manage their companies. YEO chapters hold eight to twelve educational events per year.<sup>110</sup>

The National Business Incubation Association, headquartered in Athens, Ohio, is an organization of those who run business incubators. In 1980, there were 12 business incubators in the United States. In 2002, there are over 900 business incubation programs! According to the Impact of Incubator Investments Study conducted in 1997, 87 percent of incubator graduates remain in business.<sup>111</sup> The organization sponsors educational programs for the staffs and administrators of business incubators.

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<sup>104</sup> [www.jaycees.org/aboutus.htm](http://www.jaycees.org/aboutus.htm) accessed on October 10, 2002.

<sup>105</sup> *Ibid.*

<sup>106</sup> [http://www.uic.edu/cba/ies/ies\\_history.html](http://www.uic.edu/cba/ies/ies_history.html) accessed on October 10, 2002.

<sup>107</sup> <http://www.colemanfoundation.org/index1.html> accessed on October 10, 2002.

<sup>108</sup> <http://www.colemanfoundation.org/index1.html> accessed on October 10, 2002.

<sup>109</sup> <http://www.usasbe.or/about/awards/index> accessed on October 10, 2002.

<sup>110</sup> <http://www.yeo.org/> accessed on October 10, 2002.

<sup>111</sup> <http://www.nbia.org/whatis.html> accessed on October 10, 2002.

Students in Free Enterprise (SIFE) is an organization that promotes education in the free market system by awarding over \$400,000 to student chapters who developed community outreach programs that best helped their local communities. SIFE Teams establish a variety of community outreach programs that promote free enterprise. SIFE Chapters are found at more than 750 campuses.<sup>112</sup> More than 170 top corporate executives sit on the SIFE Board of Directors. SIFE offers college professors a stipend to organize chapters to promote free enterprise and to encourage entrepreneurship. A major sponsor is Wal-Mart.

The National Collegiate Inventors and Innovators Alliance, sponsored by the Lemelson Foundation, awards \$1 million a year in \$2,000 to \$50,000 grants to support the development of courses and innovative student projects.<sup>113</sup>

Junior Achievement, founded in 1919, started as a collection of small, after-school business clubs for students in Springfield, Massachusetts. During the school year 2001-2002, Junior Achievement claims to have reached some 4 million students in the U.S. and 1.2 million students world-wide through after-school programs. They offer courses in personal finance, career planning, economics, success skills and a business simulation game. While their emphasis is on developing future business professionals, their educational programs also promote an understanding of entrepreneurship.<sup>114</sup> The organization has 121 offices throughout the United States and operates in 100 other nations. The U.S. organization spends about \$121 million on their programs. They sponsored 176,211 classes in 12,970 elementary schools, 2,719 middle schools, 2,846 high schools, and 20,641 other non-school sites during 2001-2002 school year.<sup>115</sup>

### **Fertilizing Intellectual Entrepreneurs**

The diversity and magnitude of entrepreneurship education in the United States far exceeded anticipated results of this study. Entrepreneurship programs and activities maybe found in kindergarten through doctorate studies at hundreds, if not thousands, of institutions. Entrepreneurship is now injected into school programs to encourage students to stay in school. These programs are not limited to certain regions of the United States. And entrepreneurship education is not limited to students in business programs. Many

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<sup>112</sup> <http://www.sife.org/usa/index.html> accessed on October 10, 2002.

<sup>113</sup> Brochure – National Collegiate Inventors and Innovators Alliance (NCIIA), Request for Proposals, 2002-2004. See also [www.nciia.org](http://www.nciia.org)

<sup>114</sup> [http://www.ja.org/about/about\\_who\\_vision.shtml](http://www.ja.org/about/about_who_vision.shtml) accessed on October 10, 2002.

<sup>115</sup> [http://www.ja.org/about/about\\_who\\_stats.shtml](http://www.ja.org/about/about_who_stats.shtml) accessed on October 10, 2002.

entrepreneurship education programs are directed to students and faculty in schools of engineering, medicine, science, and arts. The types of activities range from business incubators, to academic research, to opportunities for networking, as well as traditional degree and course offerings. While the primary target may be students, most programs offer consulting, seminars and networking opportunities to the general public. American intellectuals are literally not very geographically far from opportunities to learn about entrepreneurship.

Most of the universities, foundations and educational institutions described in this article offer copies of their publications which provide details on the design of their many programs. Entrepreneurship education fertilizes new generations of intellectual entrepreneurs who promote sustainable development.