

NATIONAL ENTREPRENEURSHIP ASSESSMENT
UNITED STATES OF AMERICA

2003 Executive Report



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GLOBAL ENTREPRENEURSHIP MONITOR
National Entrepreneurship Assessment • United States of America
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After two years of decline, entrepreneurial activity in the United States increased from 10.5 percent in 2002 to 11.9 percent in 2003. The United States exhibits the seventh highest Total Entrepreneurial Activity rate (TEA) among the 31 countries surveyed in the GEM study and the highest TEA rate among the G7 countries. Also, in 2003, 9.1 percent of Americans were starting a new business to pursue opportunities that would improve their condition, while only 1.7 percent were starting a new business due to the lack of alternative job opportunities.

In addition to the behavior of nascent (start-up) entrepreneurs and baby businesses (businesses less than 42 months old), an important component of a country's entrepreneurial capacity is represented by the attitude of its existing firms. The United States has a total Firm Entrepreneurial Activity (FEA) rate of 2.4 percent, the tenth highest across all GEM countries.

Overall, the United States continues to be a very entrepreneurial nation and the leader among the G7 countries.

Entrepreneurship and Job Creation

More than 70 percent of those currently involved in a start-up or in managing a new business employ at least one person. More than 80 percent of them plan to employ at least one person within the next five years. Finally, more than 20 percent of those currently involved in entrepreneurial activity plan to employ at least 19 people in the next five years. These estimates suggest that the increase in TEA rates from 2002 to 2003 may have

a positive impact on employment statistics in the near future.

Entrepreneurship and Population Profile

People between 25 and 34 years of age are the most active in entrepreneurial activity with a TEA rate of 17.3 percent. Also, men are more likely to be involved in starting a new business than women. Specifically, in 2003, in the United States, the TEA rate was 15.7 percent among men and 8.2 percent among women. This means that there were 1.9 men involved in entrepreneurship for every woman. Also, people with a specialized professional, technological, or business school degree exhibited the highest total TEA rate at 17.8 percent, and the highest proportion of opportunity-driven entrepreneurship at 13.3 percent. Finally, African Americans exhibited the highest TEA rate with 16.5 percent, followed by Hispanic Americans with a TEA rate of 15.2 percent, while the lowest total TEA rate was found for white Americans with only 10.8 percent. Also, both African and Hispanic Americans exhibited higher rates of opportunity-based entrepreneurship than Asian and white Americans.

Entrepreneurship and Cultural Values

Among the many measurements provided by the GEM study, the most marked difference between the United States and the average across all other GEM countries remains the strength of U.S. cultural and social norms. Like in previous years, the U.S. entrepreneurial culture continues being a strong differentiating factor.

The Total Entrepreneurial Activity index (TEA), constructed using annual surveys conducted in each country, estimates the percentage of adult population involved in either starting or managing a new business.

GEM survey data identify individuals who are owner-managers of existing firms and provides information on their competitive situation and on the employment they expect to generate. The Firm Entrepreneurial Activity index (FEA) is calculated by combining measurements of both competitiveness and employment projections.

EXECUTIVE SUMMARY

In the United States, a higher percent of both men and women than across all GEM countries believe that good opportunities will be available to them, and that they have the skills, knowledge and experience to start new businesses. Also, in the United States, a higher percentage of both men and women than across all GEM countries know personally someone who started a business in the past two years and, as a result, may benefit from role models. Finally, in the United States, a lower percentage of both men and women than across all GEM countries would be deterred from starting a business by fear of failing.

Entrepreneurship and Financing

Financing from informal investors and entrepreneurs is the lifeblood that supports both nascent and fledgling businesses. Informal investment amounts to more than \$100 billion annually or, put differently, 1 percent of the GDP. The United States has the highest prevalence rate of informal investors among the G7 countries, with 5 out of every 100 adults having invested in someone else's business during the previous three years. In contrast to informal investment, which went to millions of companies, formal venture capital amounted to about 0.2 percent of the GDP and was invested in about 2,500 companies, of which comparatively few were just starting up.

Formal venture capital continued its decline from its peak in 2000, the year the Internet bubble burst. The amount of classic venture capital invested in the United States in 2003 was only 18 percent of the amount invested in 2000. Big as the percentage decline was, the amount invested in 2003, \$18.2 billion, was the sixth highest annual amount in the history of the U.S. venture capital industry. Fortunately, the fall in the amount appears to have bottomed out in

2003 based on the trends on the last quarter of 2003 and the first quarter of 2004. In a long-term prospective, the amount invested in 1994 was only \$4.2 billion, which itself set the record up to that time. Hence, if the annual amount stabilizes at around \$20 billion it will be approximately five times what it was only ten years ago.

Although the amount of classic venture capital being invested may be satisfactory, where it is being invested is not. The total amount, \$304 million, invested in 2002 in seed and start-up stage companies was the lowest amount since 1980. What's more, it was only 1.4 percent of the total invested in all stages combined. This is cause for concern because there is a shortage of funding for embryonic high-potential, mainly technology-based ventures that are seeking a few million dollars of equity investment to fund the development of new products and services.

Overall Assessment

Entrepreneurship in the United States continues to thrive at very high levels and seems to be moving ahead of the general economic recovery of the country.

The United States outranks the rest of the world on key entrepreneurial framework conditions such as financial support, entrepreneurship education and training, and social norms favoring entrepreneurship. The large portion of entrepreneurial firms and the significant number of jobs created by smaller, newer and growing firms in the United States are a strong indication that the entrepreneurial sector, with its flexibility and capacity to adapt quickly, is poised to become an even more important protagonist in the future economic growth of the country.



The Global Entrepreneurship Monitor (GEM) project is a unique large scale long-term project developed jointly by Babson College and London Business School with the sponsorship of the Ewing Marion Kauffman Foundation. Started with 10 countries in 1999, the GEM consortium now includes more than 40 countries worldwide. From its inception, GEM was launched to answer three key questions:

1. Does the level of entrepreneurial activity vary between countries and, if so, by how much?
2. Are differences in entrepreneurial activity associated with national economic growth?
3. What national characteristics are related to differences in entrepreneurial activity?

In 2003, the data collection process for the United States included 1) a telephone survey of 9,195 individuals, 2) structured questionnaires completed by 39 expert informants who were interviewed in previous years, and 3) standardized national data assembled from various sources, including the National Venture Capital Association.

Although in some cases the questionnaires dealt with topics also covered by the population survey, the two sets of data conveyed very different, though complementary, information. The population survey provides information about the demographic and subjective characteristics of nascent entrepreneurs and owners of new businesses and allows the comparison between them and non-entrepreneurs. Instead, the questionnaires provide an assessment of the entrepreneurial environment of the country according to experts in various areas of entrepreneurship and entrepreneurship related issues. The combination of the two sets of data provides a unique and comprehensive picture of the status of entrepreneurship in each country, including opportunities and challenges specific to each of them.

Further details about the GEM project can be found at www.gemconsortium.org. The conceptual model guiding the GEM research and its explanation are included in the Appendix.



U.S. ENTREPRENEURIAL ACTIVITY IN 2003

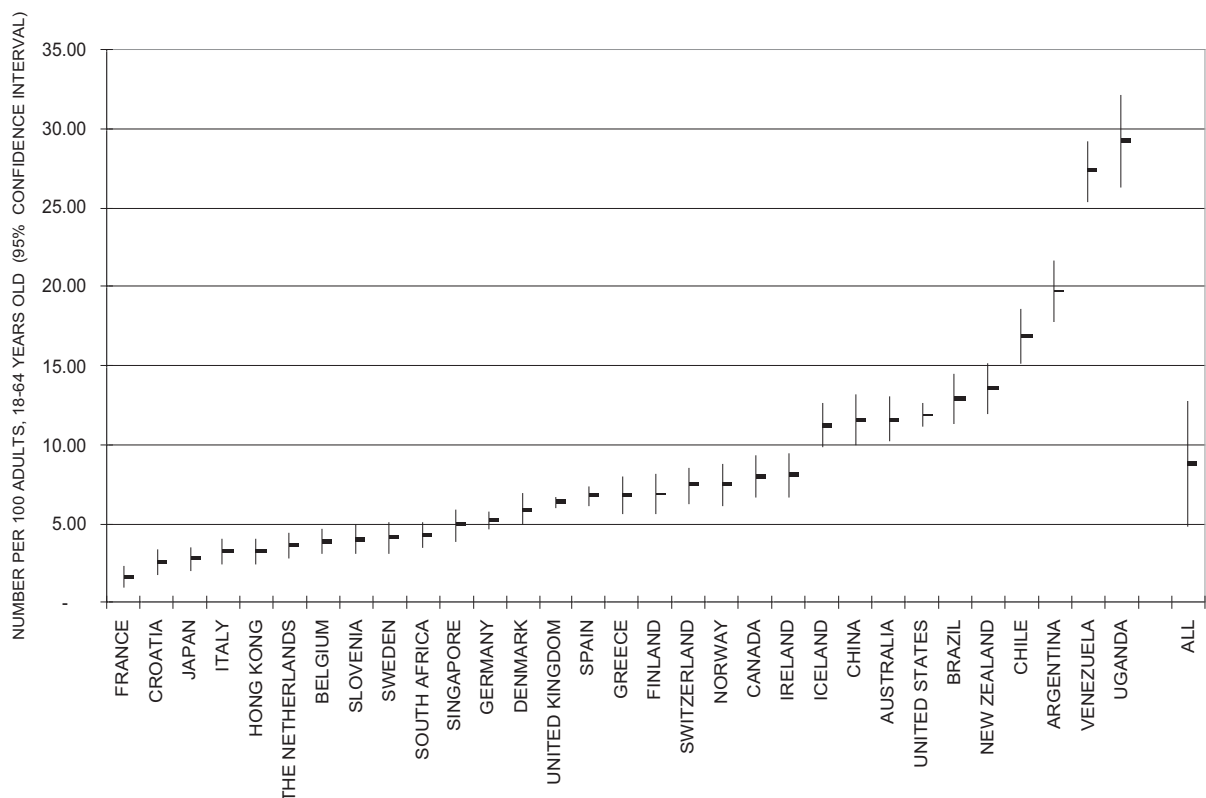
In 2003, after two years of decline, entrepreneurial activity in the United States showed a marked improvement. Figure 1 shows that, at 11.9 percent, the United States exhibits the seventh highest TEA rate among the 31 countries surveyed in the GEM study. The TEA index, constructed using annual surveys conducted in each country, estimates the percentage of adult population involved in either starting or managing a new business.

In Figure 1, the vertical band associated with each estimate represents the precision of the estimate. Specifically, it indicates that if the entire population of a country was surveyed, the resulting value for the TEA rate would fall within the band in 95 percent of the cases. Thus, the smaller the band, the more precise the estimate. Figure 1 shows that the TEA estimate for the

United States is very reliable thanks to the large size of the GEM population sample (9,195 individuals in 2003).

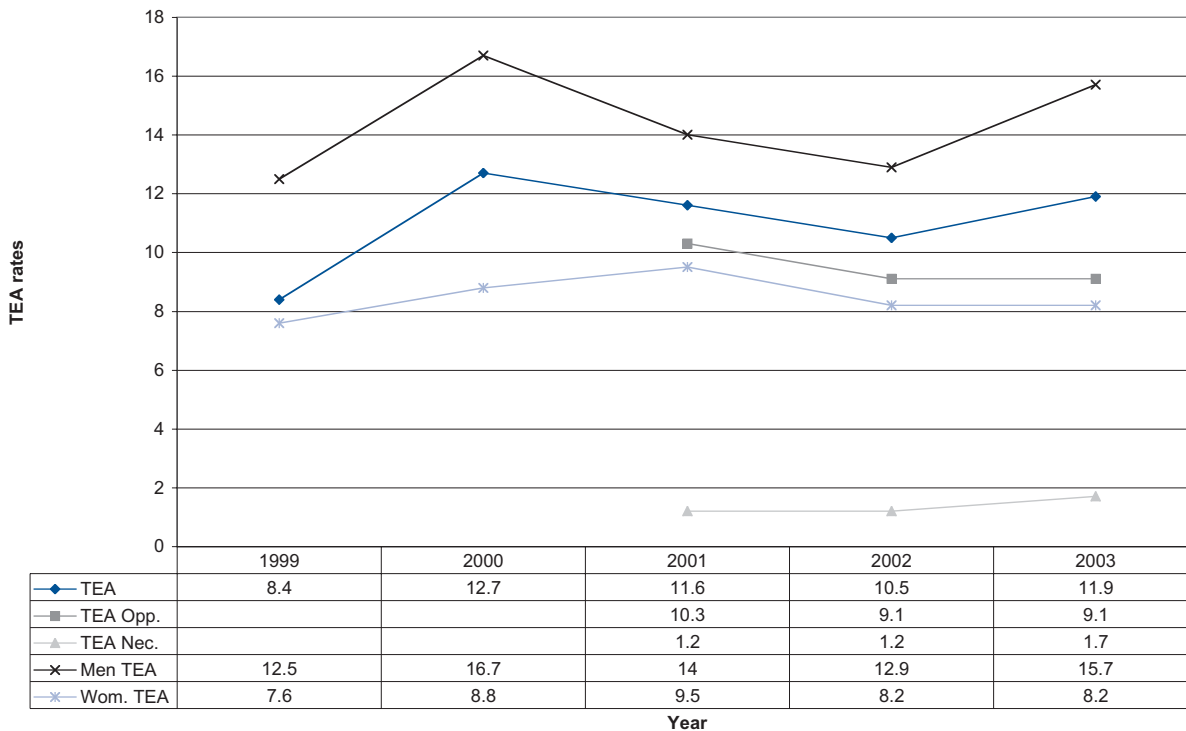
Also, if bands overlap for two or more countries, there is no statistically significant difference between their rates of entrepreneurial activity. In comparison to all other countries in the sample, the TEA rate locates the United States in a group together with Australia, Brazil, China, Iceland, and New Zealand. The diversity among the countries in this group points out that many factors contribute to the entrepreneurial make-up of a country and to the resulting difficulties involved in understanding and fostering an entrepreneurial environment. Overall, the United States remains the entrepreneurial leader among G7 and First World countries.

FIGURE 1 - TOTAL ENTREPRENEURIAL ACTIVITY (TEA) BY COUNTRY: 2003



U.S. ENTREPRENEURIAL ACTIVITY IN 2003

FIGURE 2 - U.S. TEA RATES TRENDS



In 2002 the U.S. TEA rate was 10.5 percent, down from 11.7 percent in 2001 and 12.7 percent in 2000. The marked improvement in 2003 is likely the result of the general economic recovery in the country. In fact, although there is a positive relationship between entrepreneurial activity and economic growth, it is also true that the causality of the relationship cannot be unequivocally determined (Baumol 1990, Schumpeter 1934). A higher level of entrepreneurial activity promotes efficiency and innovation thereby contributing to economic growth (Thurik 1996). However, economic growth also fosters entrepreneurial activity by providing markets and opportunities for new entrepreneurs. The latter observation is supported by the fact that countries with higher income and growth levels tend to have relatively higher rates of opportunity entrepreneurship (Reynolds et al. 2003). Figure 2 shows the historical trends in the United States for the total TEA rate, the TEA opportunity and the TEA necessity rates when available, and the TEA rates for men and women.

In 2003, in the United States the TEA-opportunity measured 9.1 percent, while the TEA-necessity was a low 1.7 percent. This indicates that most people involved in entrepreneurial activity in the United States are pursuing entrepreneurship because they believe it will improve their career condition (TEA Opportunity), while only one in seven of them is involved in starting a new business because of the lack of alternative job opportunities (TEA Necessity). This result confirms the dynamism of the U.S. economy even in a relative downturn, and in particular, the flexibility of the American labor market.

In addition to the behavior of individuals, an important component of a country's entrepreneurial capacity is represented by the attitude of that nation's firms. Existing businesses that introduce new products and services in the marketplace—and have expectations of growth—may be described as entrepreneurial firms. In the first case, the number of competitors can be used to gauge the innovativeness of the market. In the second case, hiring plans can be used to estimate expectations of growth.

U.S. ENTREPRENEURIAL ACTIVITY IN 2003

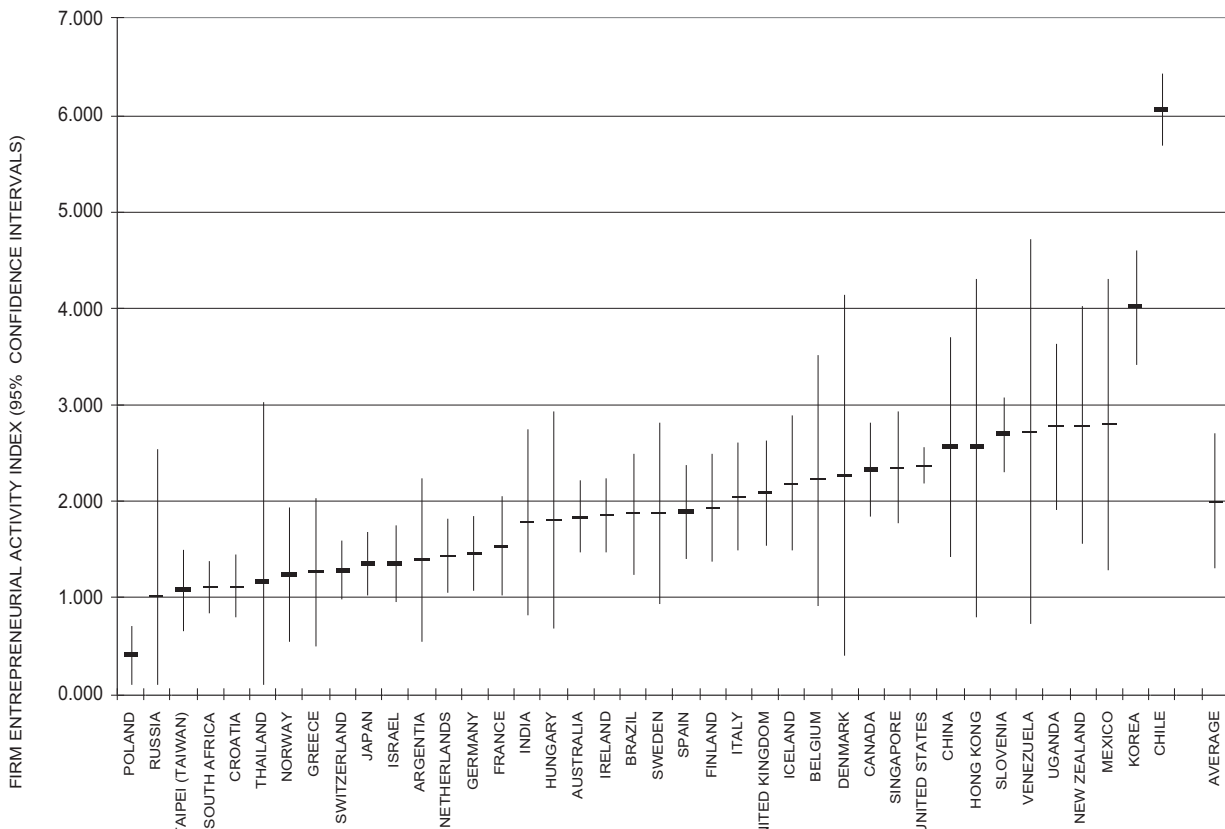
A country with a high proportion of entrepreneurial firms among its existing businesses will have a higher rate of entrepreneurial activity.

GEM survey data are well suited for estimating firm entrepreneurship because they identify individuals who are owner-managers of existing firms and provide information on their competitive situation and on the employment they expect to generate. Firms' entrepreneurial activity (FEA) is estimated by constructing the FEA index. This index is calculated by combining measurements of both competitiveness and employment projections. The number of entrepreneurial firms in the United States is estimated at 16.2 percent, while the percent of employment generated by these firms is estimated at 12.1 percent. Appropriately combined, these measures allow the computation of the Index of Firm Entrepreneurial Activity (FEA).¹ Figure 3

shows the FEA index for the 40 countries involved in the GEM study in 2002 and 2003 combined.

In Figure 3, the United States has a total FEA of 2.4 percent, the tenth highest FEA rate. Because of the way it is constructed, each national FEA index has meaning only in comparison to those of other countries. As shown in Figure 3, with the exception of Korea and Chile at high levels and Poland at low levels, the FEA indexes for all countries in the sample tend to be distributed within a relatively narrow interval. Across the 40 countries in the sample, the average FEA is 2 percent, the average number of entrepreneurial firms is 11.5 percent, and the average employment generated by entrepreneurial firms is 12.3 percent. Overall, even with respect to firm entrepreneurship, the United States remains the entrepreneurial leader among G7 and First World countries.

FIGURE 3 - FIRM ENTREPRENEURIAL ACTIVITY INDEX (FEA) FOR 40 GEM COUNTRIES: 2002 to 2003

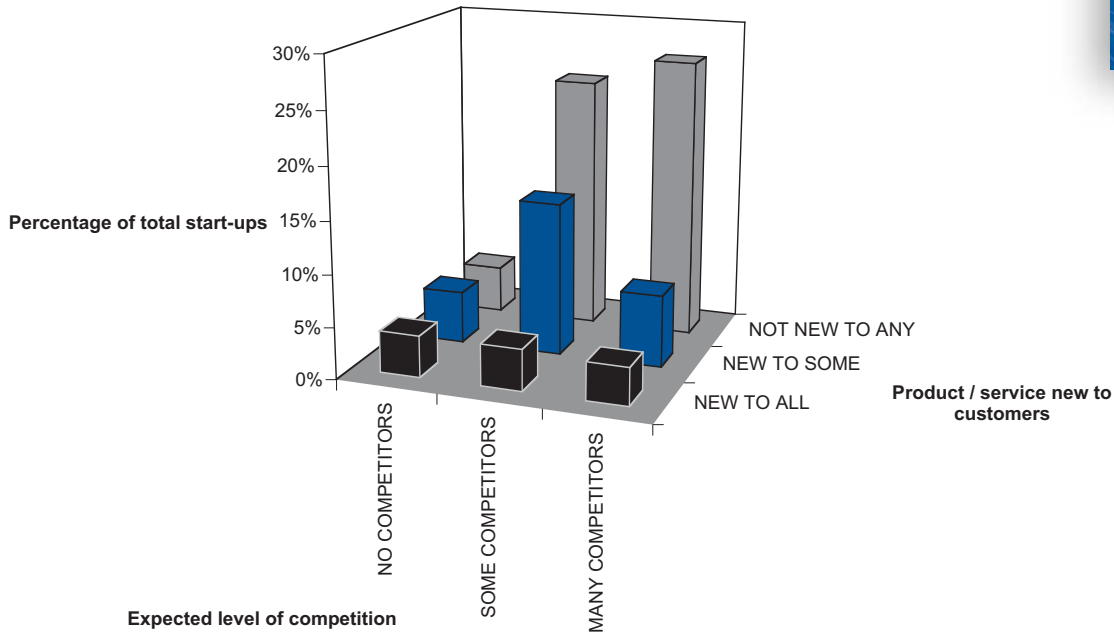


Entrepreneurs are alert individuals who perceive and exploit profit opportunities. In some cases, entrepreneurs penetrate and expand existing markets and contribute toward economic efficiency by increasing competitiveness. In other cases, in addition to contributing toward market efficiency, entrepreneurs introduce innovations and explore new opportunities by offering new and unique products or services. Innovative entrepreneurs create new markets and expand the set of profit opportunities available to others. Innovative entrepreneurs are also one of the main links between entrepreneurship and economic growth.

A business idea is considered truly innovative if it is perceived as completely new by customers and if it faces no direct competition. Figures 4 and 5 provide a breakdown of entrepreneurial activity in the United States by degree of innovativeness for start-ups and new businesses respectively. In 2003 in the United States, 56 percent of those currently involved in start-ups and 63 percent of new business owners said that their product or service was not new to any customer. However, 12 percent of start-ups and more than 9 percent of new or baby business owners claim that they are offering products or services that are completely new to customers.²



FIGURE 4 - INNOVATIVENESS OF START-UPS



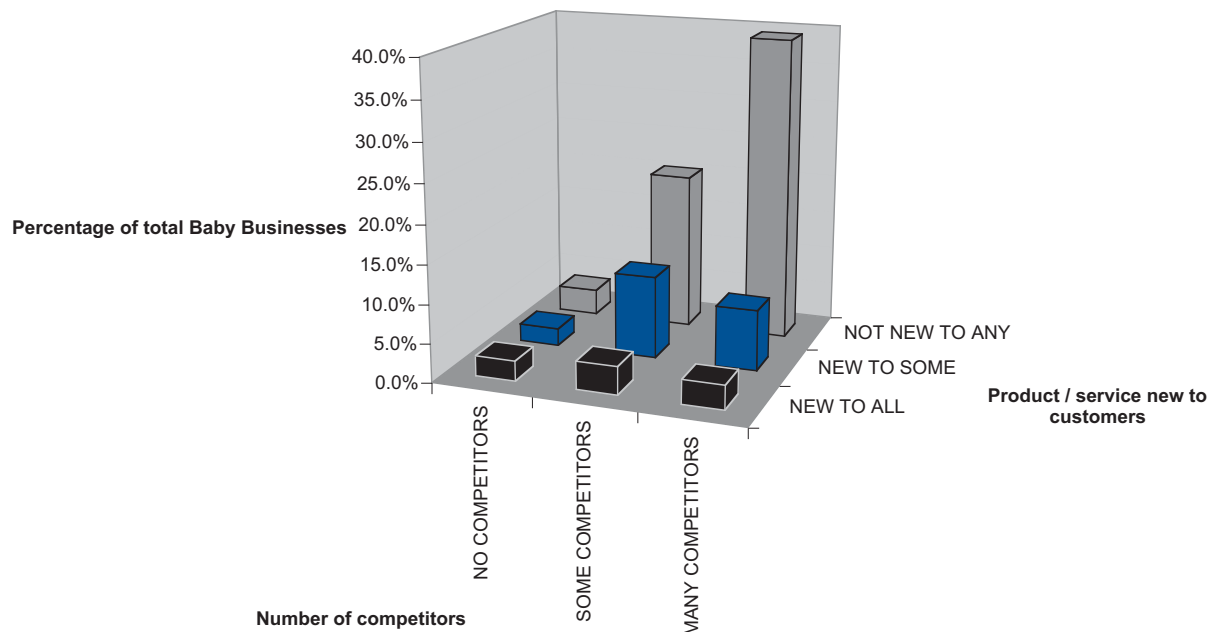
| | NO COMPETITORS | SOME COMPETITORS | MANY COMPETITORS |
|------------------|----------------|------------------|------------------|
| ■ NEW TO ALL | 4% | 4% | 4% |
| ■ NEW TO SOME | 5% | 15% | 7% |
| ■ NOT NEW TO ANY | 5% | 24% | 27% |

ENTREPRENEURIAL INNOVATIVENESS

Across countries, the majority of new firms and start-up activity is usually not innovative. Thus, the U.S. figures should be interpreted as signs of a dynamic and innovative economy. Most U.S. entrepreneurs also claim to be engaged in markets with some or many competitors. Although the existence of competitors implies that a product or service is not entirely new, the presence of competition is another sign of a healthy economy.

Finally, people currently involved in the start-up process are more optimistic than new business owners about the degree of competition they expect and about the innovativeness of their product. This change in perception might reflect the improvement of general business conditions in which those currently in the start-up process are working.

FIGURE 5 - INNOVATIVENESS OF BABY BUSINESSES



| | NO COMPETITORS | SOME COMPETITORS | MANY COMPETITORS |
|------------------|----------------|------------------|------------------|
| ■ NEW TO ALL | 2.6% | 3.7% | 3.1% |
| ■ NEW TO SOME | 2.3% | 10.7% | 7.9% |
| ■ NOT NEW TO ANY | 3.3% | 20.3% | 39.3% |

New firm formation is often viewed as an important source of new jobs. Currently, 9 percent of Americans 18-64 years old are involved in entrepreneurial activity and are already providing jobs for someone else, or planning to do so within 5 years. In addition, 1.5 percent of those identified as entrepreneurs classify as high-growth entrepreneurs. That is, they expect to provide jobs for more than 19 people in less than five years.

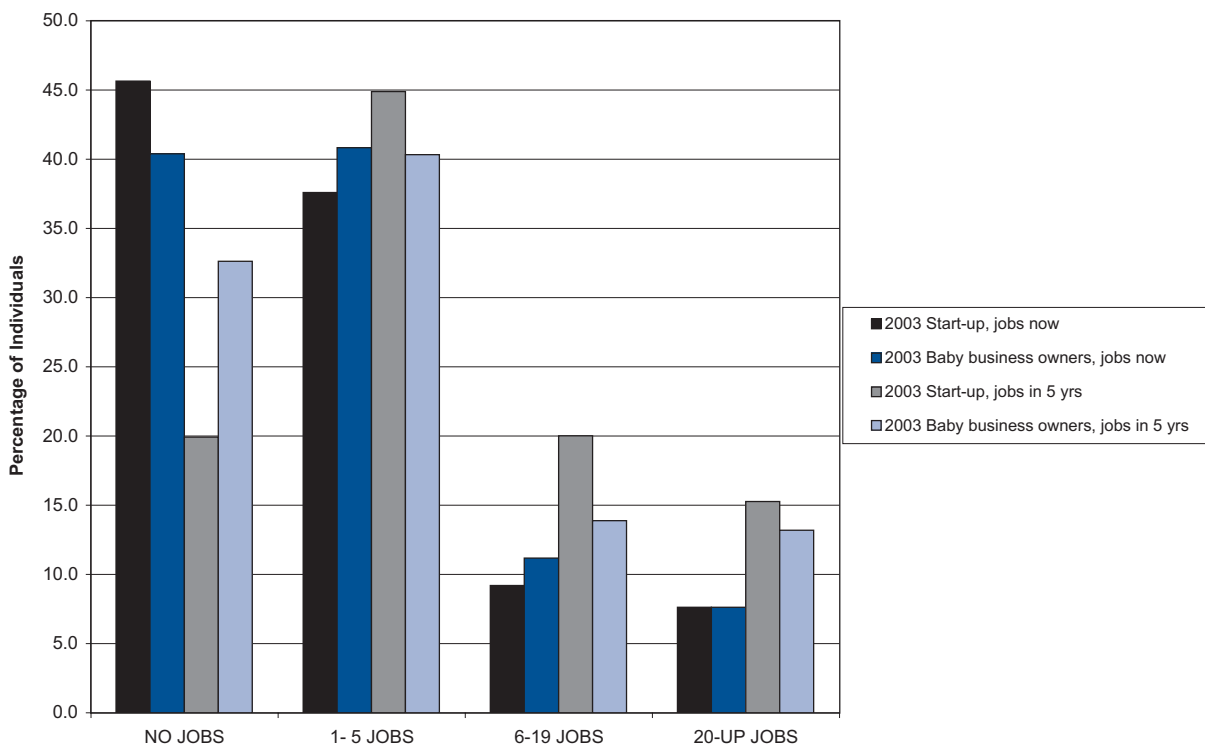
Figure 6 provides a breakdown of current and planned job offers by start-ups and new business owners. Around 40 percent of current new business owners are self-employed and do not offer jobs to other people. The remaining 60 percent, however, have employees. Forty-one percent of new business owners employ 1-5 people, 11 percent have 6-19 employees, and 8 percent have more than 20 employees. Many new business owners expect their company to grow in the next five years.

Only 33 percent expect to work alone in their company five years from now, 40 percent expect to have 1-5 employees, and 27 percent expect to have more than 6 employees.

Forty-six percent of current nascent entrepreneurs do not have employees yet. However, 80 percent of those currently involved in a start-up plan to employ at least one additional person in the next five years. The employment plans of current nascent entrepreneurs are more optimistic than the employment plans of current new business owners. This might reflect the improvement in general economic conditions or over-confidence of those currently in the early stages of setting up a new business. In either case, considering the large contribution of new firm formation to the job pool in the United States, it is likely that the increase in TEA rates from 2002 to 2003 will have a positive impact on employment statistics in the near future.



FIGURE 6 - ENTREPRENEURSHIP AND ESTIMATED JOB CREATION





The decision to start a new business is a complex multi-layered process contingent on the personal characteristics of the individual and, to a large extent, upon the context in which individuals conduct their business. This section analyzes the demographic, economic, and attitudinal characteristics of the U.S. population. The next section will address the entrepreneurial environment of the country.

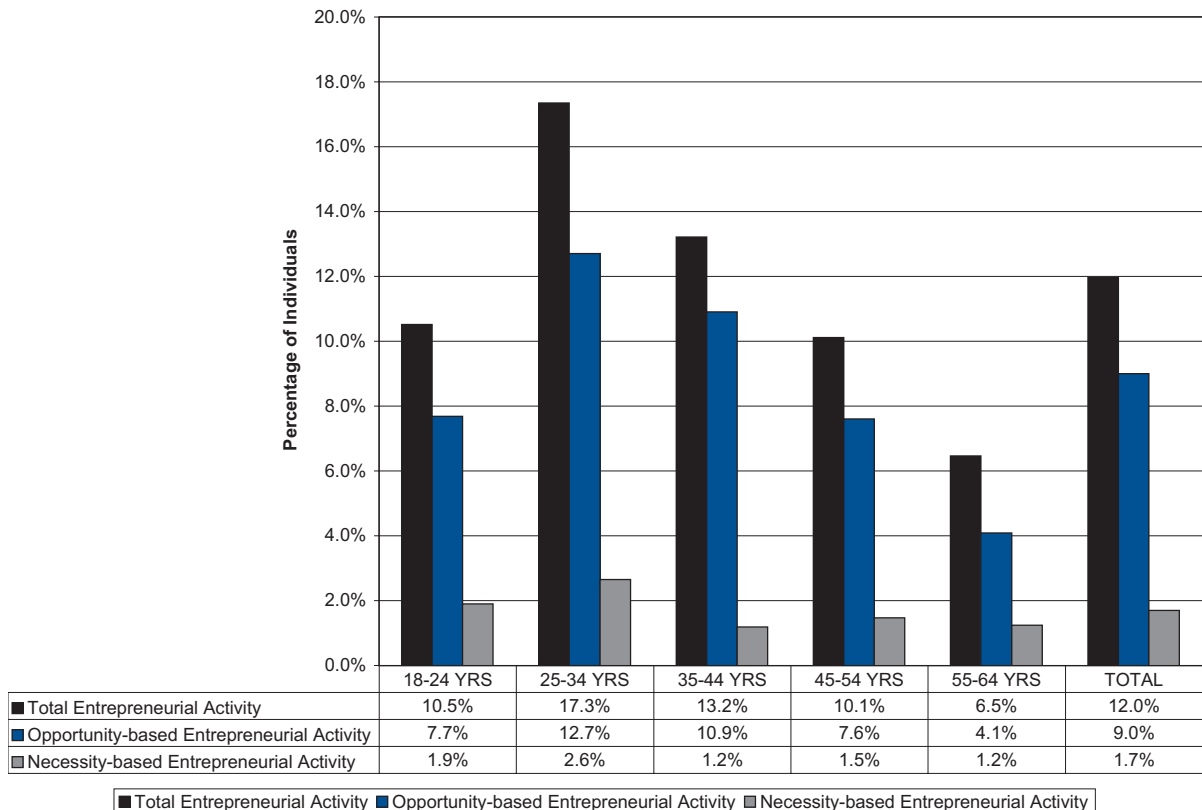
Demographic and Economic Characteristics

Age

Since its beginning in 1999, GEM findings have shown a strong systematic relationship between age and entrepreneurial activity across all countries in the study. In particular, it has been shown that the rate of

involvement in entrepreneurial activity increases with age, peaks and then declines. This pattern applies to the United States as well. Figure 7 shows that entrepreneurial activity in the United States varies significantly across different age groups. The highest level of involvement is shown by people in their late 20s to early 40s. Specifically, the age group most active in entrepreneurial activity in the United States includes people between 25-34 years of age, who exhibit a TEA rate of 17.3 percent. The TEA level among 18- to 24-year-olds is comparable to the level observed among 45- to 54-year-olds with approximately 10 percent of entrepreneurs in each of the respective age groups. The propensity to start a new business sharply decreases when people approach retirement age.

FIGURE 7 - U.S. TEA RATES BY AGE: 2003



TEA RATES AND CHARACTERISTICS OF THE U.S. POPULATION

Findings related to age are very important because of their policy implications. In fact, GEM results show that the distribution of a population across age cohorts matters because entrepreneurial decisions are not neutral with respect to age. Thus, demographic changes have the potential to be an important driver of changes in the rate of aggregate entrepreneurial activity. If age is indeed a triggering factor of entrepreneurship, it is important to take its influence into account when considering what policies and institutional settings are more conducive to entrepreneurial behavior. In general, programs aimed at increasing the level of entrepreneurial activity by changing socio-economic incentives (e.g., taxation or subsidies to small businesses) are likely to be less effective if the age distribution of the population is heavily tilted toward younger or older cohorts. Furthermore, the age distribution of the population is a structural parameter of the economy and cannot be changed quickly. To alter the way in which individuals of different ages think about themselves and their role in society

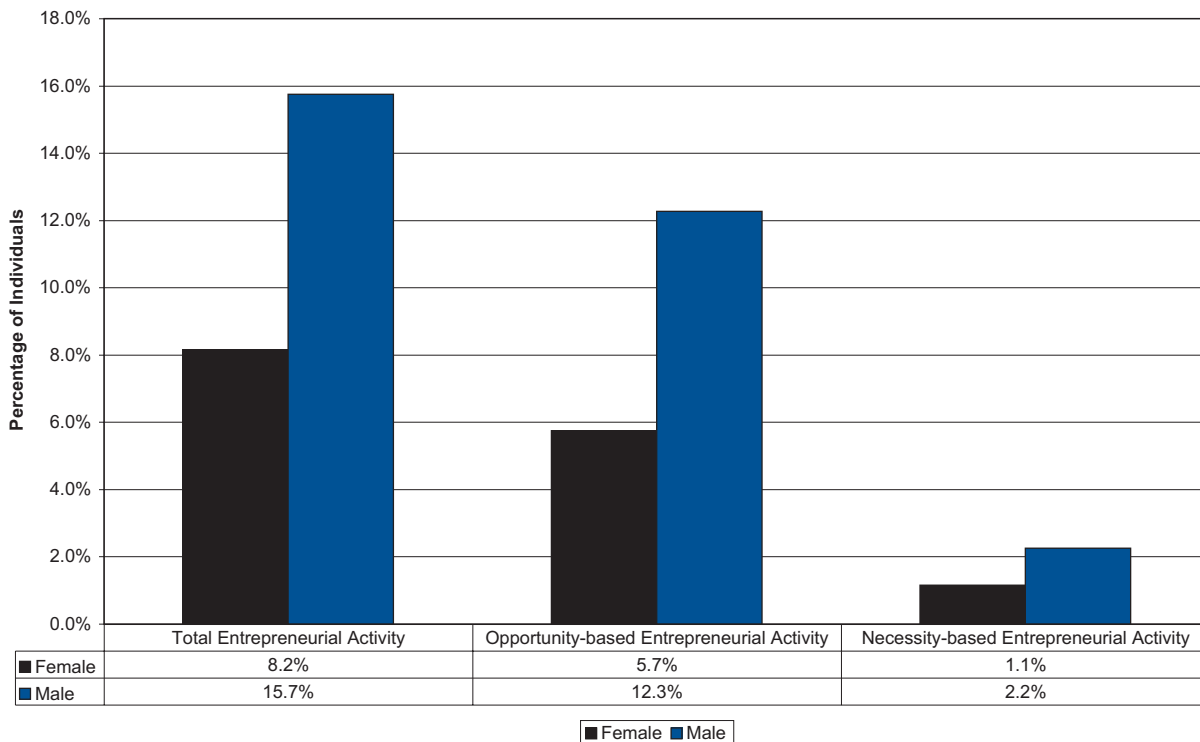
takes a long time. Thus, policies affecting a population's average age (e.g., immigration laws) are likely to be more effective.

Gender

In addition to age, GEM findings have shown the existence of a strong systematic relationship between gender and entrepreneurial activity across all countries. In particular, the findings have shown that the rate of involvement in entrepreneurial activity for women is lower than that of men across all countries in the study and that men are about twice as likely to start their own business as women.

In 2003, in the United States, there are 1.9 men involved in entrepreneurship for every woman (TEA rates of 15.7 among men versus 8.2 percent among women), which is slightly higher than the world average of 1.7. Thus, the gender gap in entrepreneurship seems to have slightly increased since 2002 when the ratio of men to women in entrepreneurship was 1.6 for the United States and 1.5 worldwide.

FIGURE 8 - U.S. TEA RATES BY GENDER: 2003



TEA RATES AND CHARACTERISTICS OF THE U.S. POPULATION

This implies that the upswing in the TEA rate in the United States in 2003 is mainly due to additional male entrepreneurs.

The breakdown by motivation shown in Figure 8 reveals that U.S. women are significantly less likely to become both opportunity- and necessity-driven entrepreneurs than men. In fact, the gender gap is marginally larger in the United States than the world-average for both types of entrepreneurship. For opportunity entrepreneurs, the men-women ratio is 2.2 in the United States versus 2.0 on average. Similarly, for necessity entrepreneurs, the men-women ratio is 2 in the United States versus 1.3 on average.

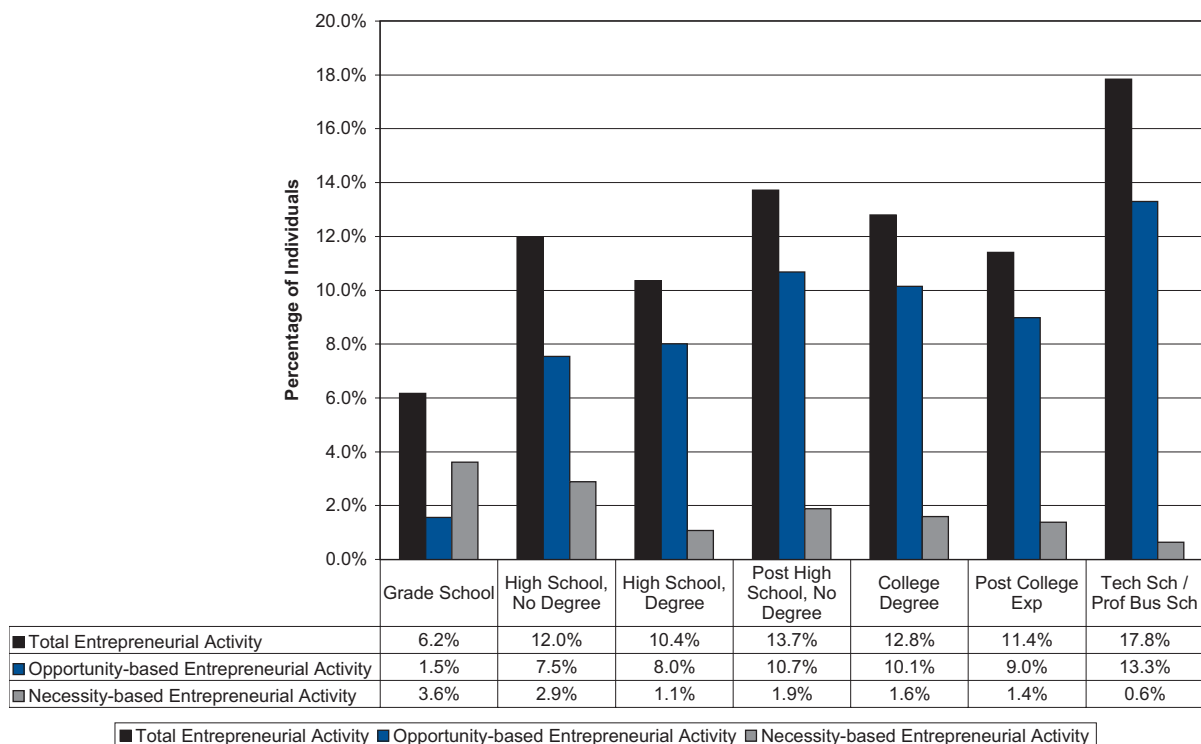
Education

Figure 9 shows that educational levels influence the propensity for entrepreneurship in the United States. Not surprisingly, the lowest TEA rate (6.2 percent) is reported for individuals with no more than grade school exposure. However, due to the lack of alternative employment choices, this is the educational group with the highest propensity to engage in necessity entrepreneurship (3.6 percent). Most of the

potential entrepreneurs in this group are likely to start new businesses in traditional sectors. At the other end of the spectrum are people with a specialized professional, technological, or business school degree. This group exhibits the highest total TEA rate with 17.8 percent, and the highest proportion of opportunity-driven entrepreneurship (13.3 percent). Only 0.6 percent of Americans in this educational group start a business because they cannot find other employment options.

Noticeably, the influence of education on the likelihood to become an entrepreneur is not strictly linear. Groups of people with more education are not necessarily more entrepreneurial. Individuals with only grade school education have the lowest TEA rate. Individuals with professional and business school degrees have the highest TEA. However, individuals with some high school education but no degree have a higher total TEA rate than those who completed high school. This is largely due to a higher rate of necessity-driven entrepreneurship among those without a high school diploma.

FIGURE 9 - U.S. TEA RATES BY EDUCATION: 2003



TEA RATES AND CHARACTERISTICS OF THE U.S. POPULATION

Along similar lines, Americans with a college degree or some post-college educational experience have a slightly lower propensity to engage in entrepreneurship than college drop-outs.

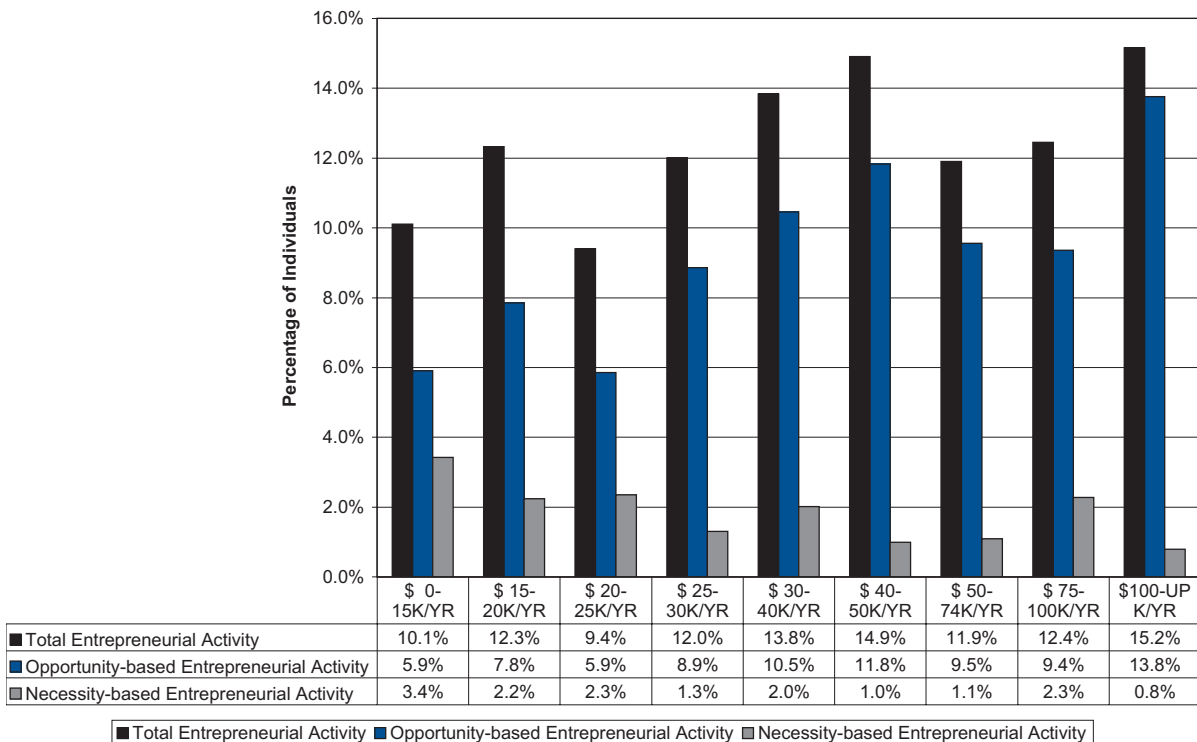
Overall, GEM results suggest a more complex relationship between educational attainment and employment choice, where different levels of education are associated with different employment opportunities, but also with different career preferences of individuals. In other words, better educated people do not automatically prefer self-employment. Also, it cannot be generally assumed that the skills learned in higher education are necessarily the skills needed to become a successful entrepreneur. However, these results are consistent with the increased demand for entrepreneurship education experienced by U.S. universities in recent years. They also lend credibility to the effort, put forth in several schools, to combine technical degree programs with business and entrepreneurship education.

Household income

Access to financial resources is one of the major constraints for the successful start of a new business. Accordingly, one might expect a strong positive correlation between household income and entrepreneurial activity. However, the 2003 data for the United States do not yield this result. Figure 10 shows that, although the highest rate of both total TEA and opportunity-driven TEA can be found in the highest income group, the pattern among all income groups is complex.

Overall, total TEA rates do not strictly increase with higher income. This is consistent with the GEM results from 2002. Also, a higher household income does not necessarily correspond to a lower level of necessity entrepreneurship. For example, the necessity TEA rate is higher for people with a household income of \$75-100K/year than for people with \$25-74K/year. This unexpected finding is likely the result of the recent wave of unemployment experienced in some traditionally high-paying sectors such as communications or financial services, where qualified people have been forced to reinvent themselves. (See Figure 10.)

FIGURE 10 - U.S. TEA RATES BY HOUSEHOLD INCOME: 2003



TEA RATES AND CHARACTERISTICS OF THE U.S. POPULATION

One reason household income does not seem to have a strong positive influence on entrepreneurial activity is that this measure does not take into account other assets that influence individual wealth, such as real estate, bank savings, or stocks. In general, overall wealth could be a better proxy for the individual access to financial resources than household income, and thus a clearer relationship between individual wealth and entrepreneurial activity could exist. This issue, as well as others related to the availability of external financing in the United States will be further developed in the section on financing.

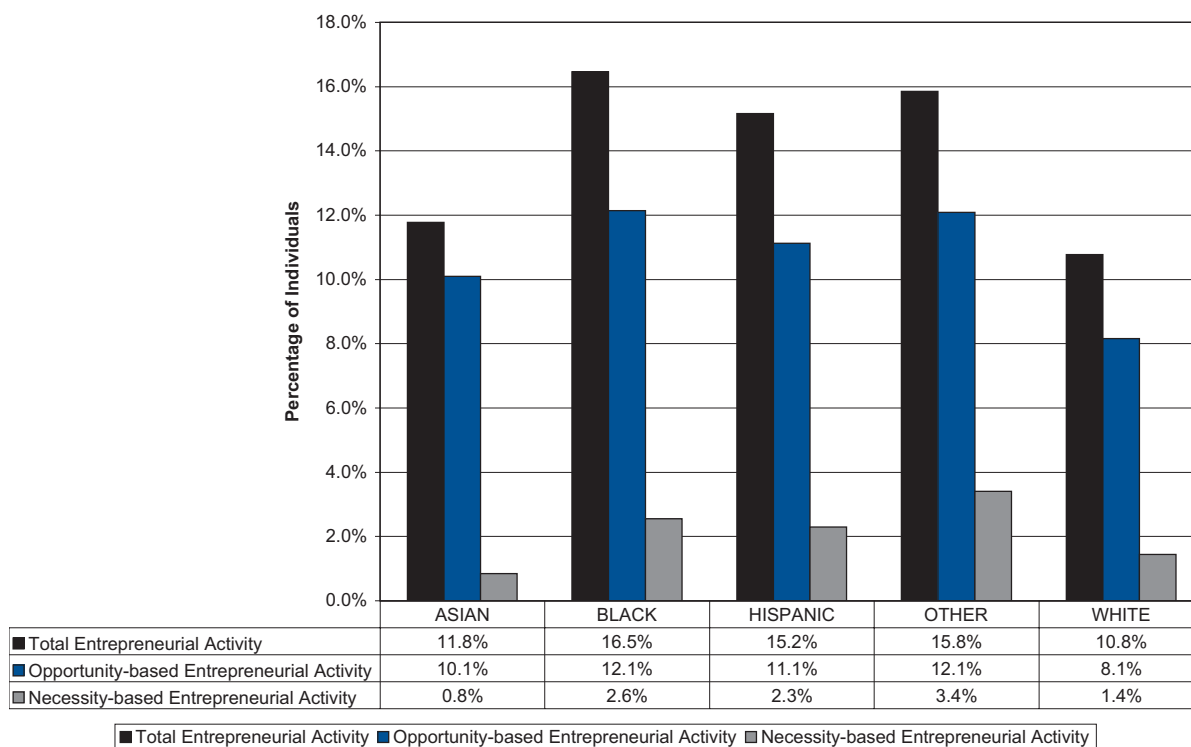
Ethnic Background

Figure 11 provides a breakdown of entrepreneurial activity by ethnic background. In 2003 in the United States, African Americans exhibited the highest TEA rate with 16.5 percent. Hispanic Americans had the next highest TEA rate with 15.2 percent. The lowest total TEA rate was found for white Americans with only 10.8 percent.

Both African Americans and Hispanic Americans exhibited higher rates of opportunity-based entrepreneurship than Asian Americans and white Americans. At 3.4 percent, the highest rate of necessity-based entrepreneurship was found among Americans who did not classify themselves as white, black, Hispanic, or Asian. The lowest level of necessity-based entrepreneurship was reported for Asian Americans (0.8 percent).

It is not known why these differences in TEA rates exist. In part they may be caused by differences in age profile, as suggested below. It is also unknown whether the high TEA rates for African Americans and Hispanic Americans reflect a relative lack of ethnicity-based barriers to entrepreneurship as opposed to other forms of employment. Although minority entrepreneurs still face major hurdles in starting, sustaining, and growing companies, the evidence suggests that entrepreneurship may become a viable option for citizens from all walks of life.

FIGURE 11 - U.S. TEA RATES BY ETHNIC BACKGROUND: 2003



TEA RATES AND CHARACTERISTICS OF THE U.S. POPULATION

Demographic and Economic Interdependencies

It is very likely that the socio-demographic dimensions used above are not strictly independent from one another. In other words, a more accurate understanding of the influence on entrepreneurial decisions of variables such as education or income can be obtained when variables are considered jointly. In some cases, a combination of various factors might have a greater influence on an individual's decision to become an entrepreneur than each individual factor alone. To better understand the nature of the interdependence among some of the socio-demographic characteristics of the U.S. population and total entrepreneurial activity, GEM computed correlation coefficients. Once again, age and gender emerge as being among the most important determinants of entrepreneurial behavior.

Ethnic Background and Age

One of the interesting insights gained from the correlation analysis is the varying age distribution within different ethnic groups in the United States. The white population is significantly older than the other ethnic groups, as Table 1 shows. In the age group most relevant for entrepreneurial activity (young adults between 25-34 years of age), Hispanic Americans, African Americans, and Asian Americans have an over-proportional share, whereas whites are

| | <u>Age 25-34</u> | <u>Age 55-64</u> |
|----------|------------------|------------------|
| Asian | 0.037** | -0.038** |
| Black | 0.023* | -0.041** |
| Hispanic | 0.066** | -0.078** |
| Other | 0.012 | -0.035** |
| White | -0.073** | 0.106** |

Note: * significant at 90%, ** significant at 95% confidence level, based on weighted U.S. adult population sample, 2003. N = 7,481.

| | <u>Age 25-34</u> | <u>Age 45-54</u> |
|----------------|------------------|------------------|
| \$ 15-20K/YR | 0.028* | -0.019 |
| \$ 20-25K/YR | 0 | -0.029* |
| \$ 25-30K/YR | 0.042** | -0.021 |
| \$ 30-40K/YR | 0.049** | -0.039** |
| \$ 40-50K/YR | 0.031** | 0.004 |
| \$ 50-74K/YR | 0.014 | 0.017 |
| \$ 75-100K/YR | -0.013 | 0.053** |
| \$ 100-UP K/YR | -0.040** | 0.064** |

Note: * significant at 90%, ** significant at 95% confidence level, based on weighted U.S. adult population sample, 2003. N = 7,481.

underrepresented. The opposite is true for older adults, represented by the age group of 55-64 years. Of course, these differences in age distribution explain only a portion of the different rates of total entrepreneurial activity between ethnic groups outlined above. Nevertheless, they contribute to explaining changes that are beginning to take place in the composition of the entrepreneurial population of the United States.

Age and Income

Another interesting and intuitive insight from the correlation analysis is the relationship between household income and age. A typical pattern of the development of income over the lifetime of an individual is an increase with age up to a maximum somewhere around 50 years, followed by a stable period as people get close to and enter retirement.

This is reflected in Table 2. Young adults at the age of 25-34 are usually low—or middle— income earners, while people at the age of 45-54 report significantly higher household income levels. This helps to explain why the household income variable does not appear to have a strong and clearly linear relationship with TEA rates: Young adults, who are the most active group in business start-up activity, are usually not top income earners.

Consequently, there is not an unambiguous pattern between household income and total entrepreneurial activity. Clearly, this does not imply that liquidity constraints are not important for the successful start of new businesses. But rather, it could signal that the well-developed financial system in the United States allows young individuals to circumvent certain liquidity constraints with loans or seed financing.

Gender and Income

The persistent, robust finding that men are almost twice as likely to start a new business as women requires further investigation. There are several reasons for these significant gender-specific differences. An analysis of relevant correlation coefficients shown in Table 3 reveals that men are significantly more likely to have a high income, and significantly less likely to have a very low income than women.

| Table 3 Pearson Correlation Coefficients Between Gender and Income | |
|--|---------|
| Male | |
| \$ 15-20K/YR | -0.029* |
| \$ 20-25K/YR | -0.007 |
| \$ 75-100K/YR | 0.032** |
| \$ 100-UP K/YR | 0.062** |
| Note: * significant at 90%, ** significant at 95% confidence level, based on weighted U.S. adult population sample, 2003. N = 7,481. | |

The results in Table 3 explain some, but certainly not all variance between male and female entrepreneurial behavior. Demographic and economic differences, in general, explain only a portion of the gender gap in entrepreneurial activity and more study of women entrepreneurs is needed. Additional insights from the correlation analysis are that, in relative terms, men are on average younger than women, and thus have a higher probability to fall into the entrepreneurial

active age cluster. With regard to education level, the findings do not show any significant differences between men and women. Finally, gender differences hold across all ethnic groups.

Subjective Dispositional Characteristics

In addition to looking at the economic and demographic profile of the population, the GEM study considers that, when deciding whether or not to start a new business, individuals are influenced also by a set of subjective "attitudes with respect to" or "perceptions about" entrepreneurship that they form based on factors such as the presence of entrepreneurial role models, perceptions of the person's skills and ability, risk propensity, and alertness to unexploited opportunities.

In order to estimate the power of these perceptions, in the adult population survey, respondents were asked whether they thought that, in the upcoming months, there would be good opportunities for starting a business in the area where they live; whether they knew someone personally who started a business in the past two years; whether they believed they have the knowledge, skill, and experience required to start a new business; and whether fear of failure would prevent them from starting a business.

Regressions run to test the importance of these variables across all GEM countries in 2001 and 2002 have shown that these variables have a crucial impact on new business creation across all countries in the project including the United States (Arenius and Minniti, 2004). In other words, the correlation between TEA rates and those variables is systematically very strong. This suggests that, for example, in a country where a strongly negative stigma is attached to failure, people will be deterred from starting new businesses. On the other hand, this also suggests that if people believe they can find good opportunities and think they have skills sufficient to start a new business, they will do so. Unfortunately, subjective perceptions can and may be inaccurate.

TEA RATES AND CHARACTERISTICS OF THE U.S. POPULATION

Table 4
Dispositional Characteristics*

| | Opportunities Exist in the Area | | Has Sufficient Skills | | Fear of Failure | | Know Other Entrepreneurs | |
|---------------|---------------------------------|-------|-----------------------|-------|-----------------|-------|--------------------------|-------|
| | Men | Women | Men | Women | Men | Women | Men | Women |
| United States | 39.8% | 28.9% | 67.9% | 49.7% | 19.5% | 21.5% | 46.7% | 38.6% |
| All Countries | 31.2% | 24.0% | 49.5% | 31.7% | 33.1% | 39.8% | 42.0% | 31.3% |

* This Table is constructed using GEM data for 2002.

This means that, by relying on subjective perceptions rather than objective conditions, entrepreneurs might sometimes overestimate their chances of success or failure (Koellinger, et al. 2004). The rationale behind such a behavior is that entrepreneurs have a strong tendency to consider their situation as unique. After all, by definition, entrepreneurs are individuals who deviate from the norm.

Table 4 compares the responses of men and women in the United States with the responses of men and women in all GEM countries. In the United States, a higher percentage of both men and women as compared to all GEM countries, believe that good

opportunities will be available to them, and that they have the skills, knowledge and experience to start new businesses. Also, in the United States, a higher percentage of both men and women as compared to all GEM countries, knows personally someone who started a business in the past two years. Finally, in the United States, a lower percentage of both men and women, as compared to all GEM countries, would be deterred from starting a business for fear of failure. Noticeably, these findings are consistent across genders. These descriptive results suggest that the cultural and social environment in the United States is favorable to entrepreneurship.

Every year, in addition to the population survey, data are collected through structured questionnaires filled out by expert informants who were interviewed in previous years (39 participants in 2003 within the United States). Answers to the questionnaires allow the calculation of indexes designed to appraise the relationship between entrepreneurial activity and nine socio-economic conditions that have the potential to foster or hinder significantly the business environment in general and entrepreneurial incentives in particular. In addition to commenting on entrepreneurial framework conditions, expert informants are asked to evaluate the extent to which their country presents opportunities and provides the motivation and capacity to exploit them. Questions are presented as statements with which respondents are asked to agree or disagree by using a scale ranging from 1 (completely false) to 5 (completely true). Each multi-item index is then computed by averaging the values for all respondents in each country for relevant sets of statements associated by topic. Table 5 shows the U.S. indexes and compares them with the averages across all GEM countries. It should be noticed that the indexes provide information only when compared to each other within a country or across countries.

With respect to the averages for all GEM countries, Table 5 shows clearly that the U.S. expert informants view positively the national entrepreneurial framework conditions. Each U.S. index is higher than the corresponding cross-country index.

Cultural and Social Norms

The most marked difference between the United States and the world average is registered in the strength of U.S. cultural and social norms (4.59 in the United States versus 2.75 across all GEM countries). The culture and social norms index captures the entrepreneurial orientation of a country. In the United States, it is also the second highest among all U.S. indexes (only the access to physical infrastructure index is slightly higher at 4.65). The national culture determines the extent to which existing social and cultural norms encourage or do not discourage individual actions that can lead to new ways of conducting business. The high ranking of the United States in this area is indicative of the country's distinct entrepreneurial orientation. Traditionally, the culture of the United States is one of seeking opportunities and taking risks. This is consistent with the expert informants' assessment of the country characteristics. In fact, the indexes assessing the existence of entrepreneurial opportunities, capacity, and motivation are all higher than the world averages. It is also consistent with GEM findings regarding the subjective dispositional characteristics of the U.S. population, which show a strong perception of having sufficient skills and ability to start a new business, relatively low fear of failure, and relatively high alertness to unexploited opportunities. Overall, like in previous years, the entrepreneurial culture continues to be a strong differentiating factor between the United States and most other GEM countries.

ENTREPRENEURIAL FRAMEWORK CONDITIONS

Table 5
Entrepreneurial Framework Conditions Indexes

| | U.S. Index* | Average Index* Across Countries |
|---|-------------|---------------------------------|
| <u>Entrepreneurial Framework Condition</u> | | |
| Financial Support | 3.57 | 2.61 |
| Government Policy 1 - Procurements | 3.11 | 2.67 |
| Government Policy 2 - Regulatory Ease and Speed | 3.15 | 2.47 |
| Government Programs | 3.18 | 2.70 |
| Education and Training 1 - Primary and Secondary | 2.76 | 2.04 |
| Education and Training 2 - Post Secondary | 3.81 | 2.78 |
| R&D Transfers | 3.47 | 2.52 |
| Commercial and Professional Infrastructure | 4.21 | 3.22 |
| Market Openness 1 - Rapidity of Market Changes | 2.88 | 2.74 |
| Market Openness 2 - Major Barriers | 3.42 | 2.76 |
| Access to Physical Infrastructure | 4.65 | 3.88 |
| Cultural and Social Norms | 4.59 | 2.75 |
| <u>Country Characteristics</u> | | |
| Existence of Entrepreneurial Opportunities | 4.00 | 3.19 |
| Entrepreneurial Capacity Potential | 3.37 | 2.46 |
| Entrepreneurial Capacity Motivation | 4.64 | 3.36 |
| Protection of Intellectual Property Rights | 4.02 | 3.17 |
| Support for Women in Entrepreneurship | 3.88 | 3.31 |
| * The reliability for each scale has been computed using Chronback's Alpha and is satisfactory. | | |

Physical Capital: Commercial, Professional, and Physical Infrastructure, and R&D Transfers

Traditionally, the access to physical capital is one of the comparative strengths of the U.S. business environment. This seems to benefit large and smaller and growing firms as well. In particular, the physical infrastructure index and the commercial and professional index, at 4.65 and 4.21 respectively, indicate that the expert informants are very confident in the support that the entrepreneurial sector receives from these

framework conditions. Unfortunately, there is relatively less optimism about R&D transfers (index of 3.47). Research and development transfers are the extent to which national research and development lead to new commercial opportunities, and whether or not these are available to new and growing firms. Protection of property rights is usually a good incentive for R&D transfer. In the United States, although the protection of property right index is high, expert respondents feel that new and growing firms should have easier access to the latest technology.

Government Support

Government support includes the extent to which government policies are size-neutral or encourage new and growing firms. This includes but is not limited to issues such as taxes, regulations, and public procurements. Government support also includes the presence of direct programs designed to assist new and growing firms. Finally, the government is to a large extent responsible for the degree of market openness and the facility with which markets can adjust to changing conditions, for example, through labor laws and regulations. In relative terms, the government policy, programs, and market openness indexes for the United States are the closest in value to the world averages among the U.S. indexes. This evidence, although purely suggestive, seems to indicate that, although the U.S. government is traditionally supportive of entrepreneurial activity, expert informants feel that much more could be done to increase the extent to which these entrepreneurial framework conditions support or not hinder the efforts of new and potential entrepreneurs.

Financial Support

Financial support determines the availability of financial resources, including grants, subsidies, equity, and debts for new and growing firms. Traditionally, financial support for the entrepreneurial sector is relatively strong in the United States. However, historically low interest rates and the wave of small business failures over the last few years have produced a tightening of credit conditions which, of course, penalizes relatively smaller and newer firms because of the higher degree of risk usually associated with them. Although the flexibility and development of U.S.

financial market has a strong positive influence on the entrepreneurial sector, the financial support index by itself (3.57 in the United States versus a world average of 2.61) does not provide much information in this regard. The issue of financing will be discussed in detail in the last section of this report, which is dedicated to venture capital and other financing venues.

Education and Training

Education and training refers to the extent to which all levels of the U.S. educational system are effective in providing instruction and experience in the creation and management of new businesses. The two indexes referring to education and training suggest that expert informants might have reservations about the effectiveness of some parts of the American educational system in educating students to think creatively and innovatively. Some skepticism seems to exist for primary and secondary levels of schooling, perhaps in connection to the great disparity in learning attainment registered between different school districts and even individual institutions. The second index, instead, which refers to training and education, suggests that expert informants have confidence in the value added by entrepreneurship education in post-secondary education in the United States. Indeed, the United States continues to be a leader in entrepreneurship education and training at the undergraduate and graduate levels. The recent development of joint programs between engineering and business schools and the increasing number of university incubators are just two signs of the new appreciation developed in the United States for entrepreneurship education.

A necessary ingredient for an entrepreneurial society is money to start and grow new businesses. GEM tracks two key sources of financing for entrepreneurs: 1) formal venture capital firms and 2) informal investors. Specifically, GEM determines the amount of venture capital invested in seed, early, start-up, and expansion stage companies—referring to it as classic venture capital. Further, GEM estimates the amount of money invested by individuals in someone else's business. This is referred to as informal investment.

One of the most surprising and important findings of GEM is that the amount of informal investment is relatively large compared with the amount of classic venture capital. In addition, informal investment covers the spectrum of entrepreneurship from micro- to mega-businesses; whereas classic venture capital is invested only in

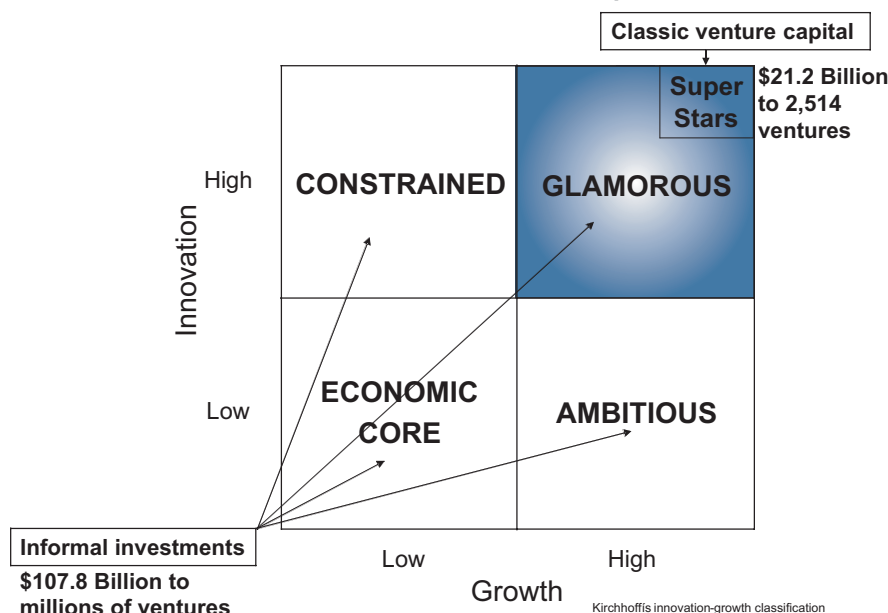
an elite group of companies with the potential to become super stars. This is represented in Figure 12 where businesses are classified according to their degree of innovation and rate of growth. GEM estimates that individuals informally invested \$107.8 billion in millions of companies, in contrast to \$21.2 billion of classic venture capital invested in just 2,514 companies in 2002.

This report will address classic venture capital and then will look at informal investment. This year, GEM compared the United States with its G7 partners and Israel. Israel was included because its venture capital industry is quite similar to the U.S. industry, inasmuch that almost all its investments are in technology-based ventures; furthermore Israel, in proportion to its size, has more classic venture capital than any other country in the world.



FIGURE 12 - FINANCING YOUNG VENTURES

Classification of Companies



Classic Venture Capital

The amount of classic venture capital invested in the United States continued the decline that set in with the collapse of the Internet bubble in 2001. The amount was \$54.9 billion in 1999, peaked at \$106.3 billion in 2000, fell to \$41 in 2001, and fell again to \$21.2 in 2002. When expressed as a percent of GDP, the United States in 2002 was in third place behind Israel and Canada, but well ahead of the United Kingdom, France, Germany, Italy, and Japan. Classic venture capital in the United States as a percent of GDP has tumbled from 1.02 percent in 2000 to 0.204 percent in 2002 (Figure 13). This 80 percent decline is the greatest percentage drop in all the G7 countries plus Israel. In total dollars, the United States had the lion's share of classic venture capital invested in all the 30 GEM countries combined; the U.S. share was 65 percent in 2002 compared with 81 percent in 2000 and 69 percent in 2001.

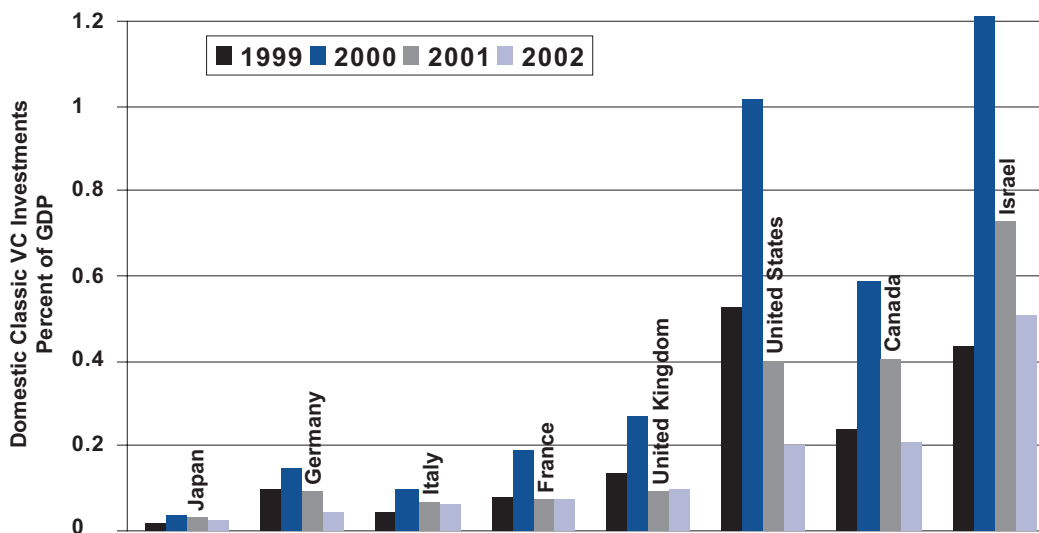
The total number of companies in which classic venture capital was invested was greater in the United States than in any other country (Figure 14). Twenty percent of the companies receiving classic venture capital were in the United States versus 80 percent in all the other GEM countries combined.

The reason why 65 percent of the amount of classic venture capital was invested in U.S.

companies, but only 20 percent of the companies were in the United States is that the average investment in a U.S. company was much greater than the average investment per company in the other GEM countries (Figure 15). It appears the U.S. venture capitalists are very selective in choosing in which companies to invest but are then willing to invest significantly larger amounts than, for example, Japanese venture capitalists. In fact, the latter invested a much smaller total amount of venture capital in about 2,000 companies while, in comparison, the entire amount of U.S. venture capital went to only 2,514 compaies."

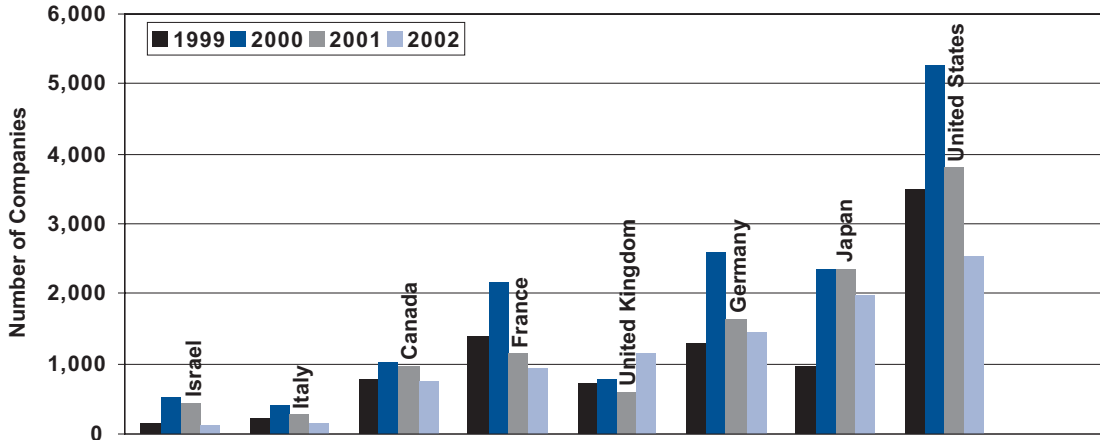
The average amount of classic venture capital invested in a Japanese company was only \$0.51 million compared with \$8.44 million in the United States. This begs the question of how a Japanese company can hope to compete with its U.S. counterpart when there is such a large disparity in the amount of funding. Because venture capital accelerates the commercialization of innovations, especially those driven by technology, perhaps it partly explains why U.S. companies, many of them backed by venture capital, dominate industries such as computer hardware and software, the Internet, and biotechnology.

FIGURE 13 - DOMESTIC VENTURE CAPITAL INVESTED: PERCENT OF GDP 1999 TO 2002



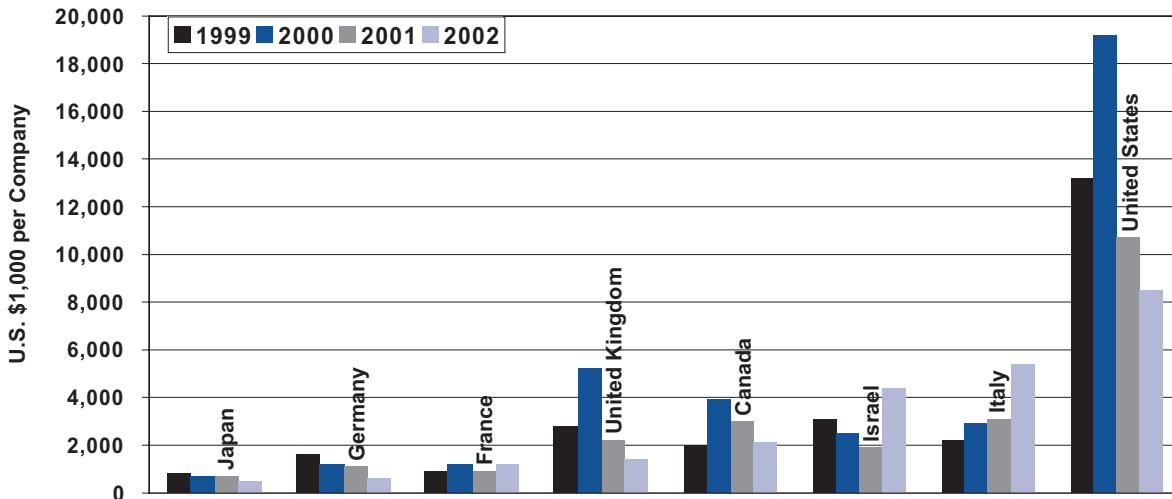
Classic Venture Capital Comprises Investments in Seed, Early, Start-up, and Expansion Stage Companies.

FIGURE 14 - NUMBER OF COMPANIES RECEIVING DOMESTIC CLASSIC VENTURE CAPITAL: 1999 TO 2002



Classic Venture Capital Comprises Investments in Seed, Early, Start-up, and Expansion Stage Companies.

FIGURE 15 - AMOUNT OF DOMESTIC VENTURE CAPITAL INVESTED PER COMPANY: 1999 TO 2002 (\$1,000)



Classic Venture Capital Comprises Investments in Seed, Early, Start-up, and Expansion Stage Companies.

Although the decline in the total amount of venture capital was steep through 2002, it slowed down in 2003 when the amount was only 15 percent less than in 2002. To put it in a longer term context, 2002 ranks as the fifth highest annual amount of venture capital investment in the history of the U.S. industry, and 2003 ranks sixth.

However, of much more concern than the decline in the absolute amount is the fact that both the amount and percentage of venture capital invested in seed and startup stage companies continued their precipitous decline (Table 6). The total amount, \$304 million, invested in 2002 in seed and start-up companies was the lowest amount since 1980.

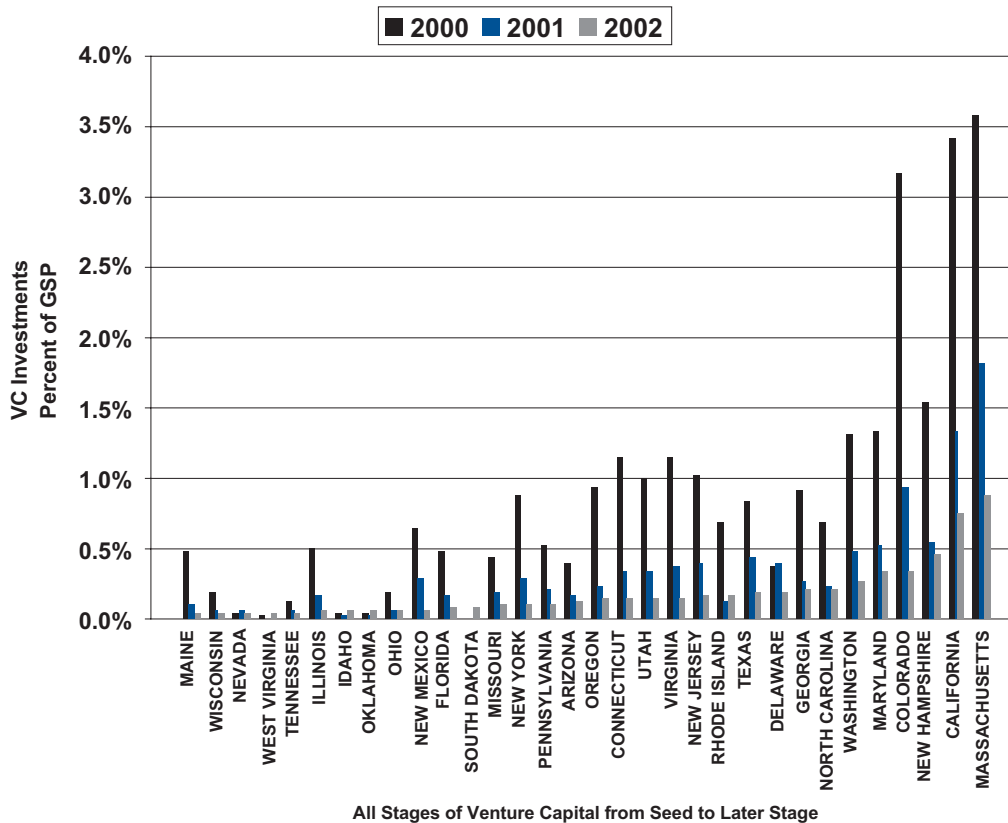
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Table 6
Amount of Venture Capital Invested by Stage in the United States (\$ million)

Source: National Venture Capital Association Yearbook 2003

| Stage | 1997 | | 1998 | | 1999 | |
|---------------|---------|--------|--------|--------|--------|--------|
| Seed/Start-up | 1,332 | 8.8% | 1,856 | 8.6% | 3,329 | 6.1% |
| Early Stage | 3,519 | 23.2% | 5,459 | 25.4% | 12,076 | 22.0% |
| Expansion | 7,911 | 52.3% | 10,830 | 50.5% | 30,787 | 56.1% |
| Later | 2,378 | 15.7% | 3,321 | 15.5% | 8,733 | 15.9% |
| Total | 15,139 | 100.0% | 21,467 | 100.0% | 54,924 | 100.0% |
| Stage | 2000 | | 2001 | | 2002 | |
| Seed/Start-up | 3,144 | 3.0% | 794 | 1.9% | 304 | 1.4% |
| Early Stage | 26,126 | 24.6% | 9,227 | 22.5% | 4,076 | 19.2% |
| Expansion | 60,880 | 57.3% | 23,495 | 57.3% | 13,301 | 62.7% |
| Later | 16,145 | 15.2% | 7,518 | 18.3% | 3,543 | 16.7% |
| Total | 106,295 | 100.0% | 41,034 | 100.0% | 21,224 | 100.0% |

FIGURE 16 - VENTURE CAPITAL INVESTMENTS: PERCENT OF GROSS STATE PRODUCT



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In total dollars of venture capital invested in companies within a state, California with \$5.21 billion handily topped the list in 2002 followed by Massachusetts (\$1.36 billion), Texas (\$0.75 billion), New York (\$0.51 billion), and Georgia (\$0.37 billion). However, as a percentage of GSP (gross state product), the rank order was Massachusetts, California, New Hampshire, Colorado, and Maryland (Figure 16).

Important as classic venture capital is in accelerating the commercialization of inventions and innovations, it is not nearly as important as informal investment in the overall financing of entrepreneurship. Millions of companies are financed annually with money from informal investors, the so-called 4Fs (founders, family, friends, and foolhardy strangers), whereas only a few thousand companies get classic venture capital investments. Also, when it comes to seed-stage companies, venture capital is so rare that at most only a hundred or so companies have venture capital in hand at their birth, in contrast to millions that have informal investment. Figure 17 shows the proportions of classic venture capital to informal investment in the United States,

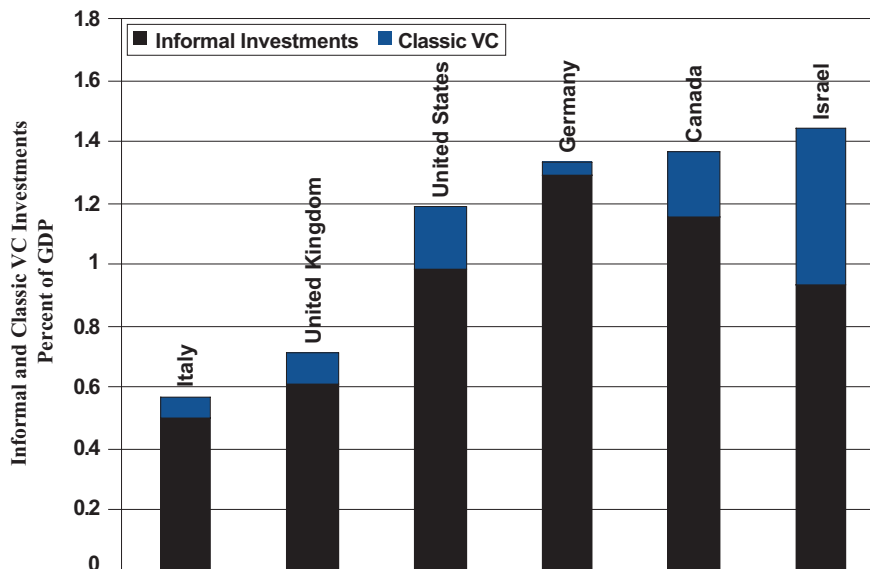
Germany, Canada, Israel, the United Kingdom, and Italy. Two G7 countries, France and Japan, are missing because informal investors are so rare in those countries that there was not a large enough sample of informal investors to determine reliably the amount of investment.

Informal Investors³

From 2000 to 2003, the prevalence of informal investors in the United States was almost 5 percent, which means that five out of every 100 adults in the United States invested privately in someone else's business during the past three years. It was the highest prevalence rate among the G7 countries and Israel (Figure 18).

The annual informal investment in the United States amounted to \$108 billion or almost 1 percent of GDP (Figure 19). Not only does this money go to start and grow businesses, which in the long-term may increase GDP, it also has an immediate impact on GDP because it is used by those new and growing businesses to pay wages and buy goods and services.

FIGURE 17 - DOMESTIC INFORMAL AND CLASSIC VENTURE CAPITAL INVESTMENTS: PERCENT OF GDP



Classic venture capital comprises investments in seed, early, start-up, and expansion stage companies.

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FIGURE 18 - INFORMAL INVESTOR PREVALENCE RATE: 2000 TO 2003

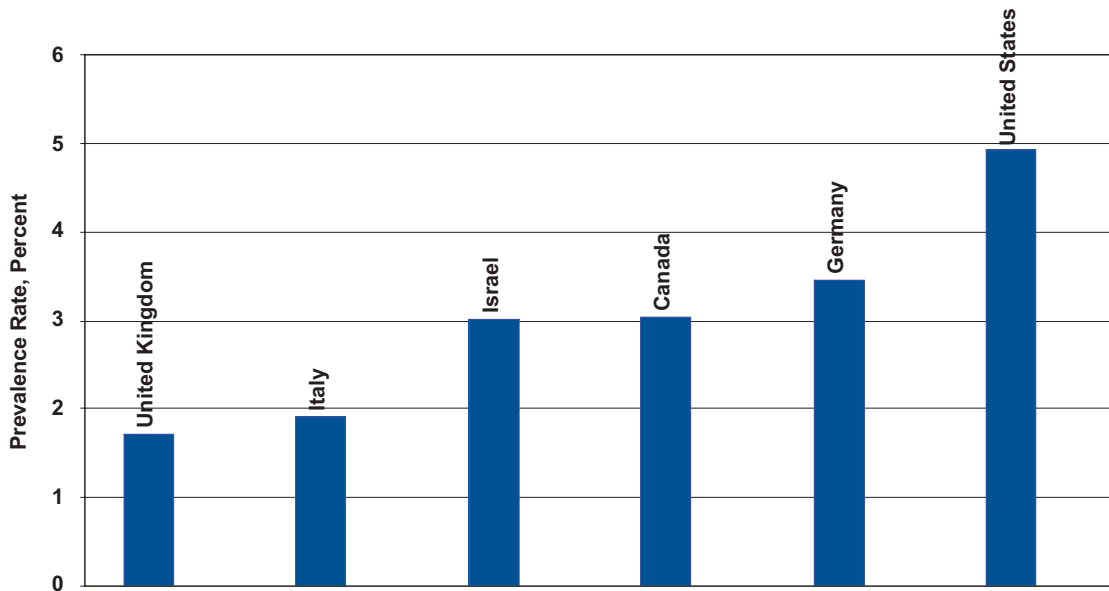
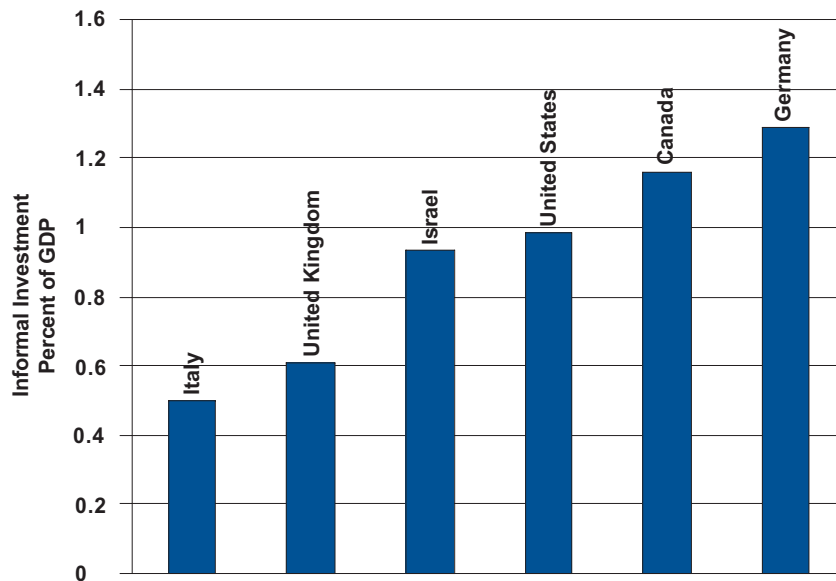


FIGURE 19 - DOMESTIC INFORMAL INVESTMENT AS A PERCENT OF GDP: 2000 TO 2003



More than 50 percent of informal investment goes to a relative's business; 28.5 percent to a friend or neighbor's; 6.1 percent to a work colleague's; and 9.4 percent to a stranger's (Table 7). Young informal investors tend to be

more prevalent than older investors (Table 8). Higher-income households are more likely to be informal investors (Table 9). And the more years of education a person has, the more likely he or she is of being an informal investor (Table 10).

| Table 7 More Than 50 Percent Invest In Relatives' Businesses | |
|--|--------|
| Investor's Relationship to Investee | |
| Close Family | 41.8% |
| Other Relative | 10.5% |
| Work Colleague | 6.1% |
| Friend/Neighbor | 28.5% |
| Stranger | 9.4% |
| Other | 3.6% |
| | 100.0% |

| Table 8 Young Investors Are More Prevalent Than Older Investors | |
|---|---|
| Age of Investor | Prevalence of Informal Investors in Age Group |
| 18-24 | 5.5% |
| 25-34 | 4.9% |
| 35-44 | 4.9% |
| 45-54 | 4.2% |
| 55-64 | 4.6% |
| 65-74 | 2.9% |
| ≥75 | 2.7% |

Significance .0188

| Table 9 Higher Income Households Are More Likely To Be Investors | |
|--|--|
| Household Income | Prevalence of Informal Investors in Income Group |
| 0-15K | 3.1% |
| 15-20K | 2.2% |
| 20-25K | 1.9% |
| 25-30K | 3.4% |
| 30-40K | 4.1% |
| 40-50K | 3.9% |
| 50-74K | 4.8% |
| 75-100K | 5.9% |
| >100K | 11.1% |

Significance .0000

Entrepreneurs are much more likely to be informal investors than persons who are not entrepreneurs. The prevalence rate for non-entrepreneurs is 3.7 percent compared with 14.5 percent for nascent entrepreneurs, 18.0 percent for owners of baby businesses, and 11.2 percent for owners of established businesses (Table 11). It is likely that entrepreneurs are more disposed to be informal investors because they understand the entrepreneurial process; they are able to evaluate the prospects of another entrepreneur's venture; and they like to support other entrepreneurs with both money and advice.

Men are slightly more than twice as likely as women to be informal investors. Of the individuals who reported that they were informal investors, 68 percent were men and 32 percent were women. This can be explained largely by the findings that informal investors are more prevalent among entrepreneurs and higher-income individuals and that, as noted earlier in this report, there are almost twice as many male as female entrepreneurs, and on average men have higher incomes than women. Hence it can be supposed that there should be more male than female informal investors, all other things being equal. The amount invested by income level for men and women is shown in Table 12. Women were somewhat less likely than men to report the amount they had invested, because of those who reported that they were informal investors, 32 percent were women, but of those that reported the amount they had invested only 29.9 percent were women.

As might be expected, higher net worth households invest larger amounts of money in new businesses (Table 13).

The 2003 household survey asked informal investors if they expected to be repaid, and if so over what period of time. Almost four out of five investors expected to be repaid; 47 percent expected to be repaid in two years; and 71 percent within five years (Table 14).

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Table 10
Graduates Are The Most Likely Investors

| Education | Prevalence of Informal Investors in Education Group |
|-----------------------------|---|
| Grade School | 2.3% |
| High School, No Diploma | 3.3% |
| High School, Diploma | 3.6% |
| Post High School, No Degree | 4.8% |
| College Education | 5.7% |
| Post College Education | 6.2% |

Significance .00025

Table 11
Entrepreneurs Are Much More Likely To Be Informal Investors

| Entrepreneur's Business | Prevalence of Informal Investors by Business Type |
|---------------------------------|---|
| Nascent <3 months | 14.5% |
| Baby Business <42 months | 18.0% |
| Established business >42 months | 11.2% |
| All Non-Entrepreneurs | 3.7% |

Significance .0000

Table 12
Males Are Twice As Prevalent As Females and Invest Larger Amounts

Gender of Informal Investors by Amount Invested

| | <\$167 | \$167 to \$1,666 | \$1,667 to \$8,333 | \$8,334 to \$33,333 | ≥\$33,334 | All Amounts |
|--------|--------|------------------|--------------------|---------------------|-----------|-------------|
| Male | 67.7% | 63.4% | 74.4% | 72.7% | 89.8% | 70.1% |
| Female | 32.3% | 36.6% | 25.6% | 27.3% | 10.2% | 29.9% |
| | 100% | 100% | 100% | 100% | 100% | 100% |

Significance .0000

To see if a prediction could be made as to who is an informal investor and who is not, GEM developed models that discriminate between those who are and are not informal investors. The models are shown in Table 15.

Model 1 correctly classified 87.4 percent of those who were not informal investors with just one variable: whether or not a person was an entrepreneur. Model 2 correctly classified 55.8 percent of those who were informal investors with two variables: whether or not a person was an

entrepreneur and household income. Model 1 was best overall because it correctly classified 85.9 percent of both informal investors and non-investors with one variable: whether or not someone was an entrepreneur. It should be noted that age, education level, and whether someone lived in a rural or urban location did not improve the ability of the models to correctly classify investors and non-investors, because both age and education level are correlated with household income.

Table 13
Highest Net Worth Households Invest Largest Amounts

| Net Worth | Amount Invested | | |
|------------------------|-----------------|---------------------|-----------|
| | ≤\$8,334 | \$8,334 to \$33,333 | ≥\$33,333 |
| ≤\$100,000 | 55.1% | 19.4% | 25.0% |
| \$101,000 to \$250,000 | 15.7% | 19.4% | 8.3% |
| \$250,000 to \$750,000 | 17.8% | 30.6% | 8.3% |
| \$751,000 and up | 11.4% | 30.6% | 58.3% |
| | 100.0% | 100.0% | 100.0% |

Significance .00001

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Table 14
Most Investor's Expect To Be Repaid

| Expected Pay-Back Period | Percent | Cumulative Percent |
|--------------------------|---------|--------------------|
| 6 Months | 20.4% | 20.4% |
| 1 Year | 8.6% | 29.0% |
| 2 Years | 17.7% | 46.7% |
| 5 Years | 24.7% | 71.4% |
| 10 Years | 5.5% | 76.9% |
| 20 Years | 2.3% | 79.2% |
| Never | 20.8% | 100.0% |

The amount of money that an individual invested informally correlated with household income, net worth, age, and size of owner-managed business (Table 16).

From the results of the discriminant analysis and the regression analysis. GEM's advice to entrepreneurs who seek informal investment is to start by asking older male relatives who are entrepreneurs with high income and high net worth; next extend the search to women, friends, neighbors, and work colleagues; finally, turn to strangers.

Table 15
Discriminant Analysis: Investors And Non-Investors

| | | Discriminant Analysis | | | | | | |
|---|--------------------|-----------------------|--------|--------|--------|--------|--------|--------|
| | | Models | | | | | | |
| | Pearson Chi-Square | Significance | 1 | 2 | 3 | 4 | 5 | 6 |
| Entrepreneur/Owner | 589.79 | 0.00000 | X | X | X | X | X | X |
| Household Income | 200.65 | 0.00000 | | X | X | X | X | X |
| Gender | 82.57 | 0.00000 | | | X | X | X | X |
| Age | 37.16 | 0.00000 | | | | X | X | X |
| Education Level | 40.78 | 0.00000 | | | | | X | X |
| Urban-Rural | 7.63 | 0.10610 | | | | | | X |
| Percent Non-Informal Investors Correctly Classified | | | 87.4% | 78.9% | 83.0% | 82.9% | 82.9% | 82.9% |
| Percent Informal Investors Correctly Classified | | | 43.1% | 55.8% | 51.0% | 50.9% | 50.9% | 51.0% |
| Percent of Cases Correctly Classified | | | 85.9% | 78.1% | 81.9% | 81.8% | 81.8% | 81.8% |
| | | Chi-Squared | 606.9 | 712.3 | 741.8 | 731.4 | 729.6 | 725.8 |
| | | Significance | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Table 16
Regression Model For Amount Invested

| Log₁₀ (amount invested) | |
|---|-----------------------------|
| Constant | 2.72 (0.0000) |
| Household Income | 0.0057 (0.0025) |
| Net Worth | 0.000016 (0.0152) |
| Age | 0.012 (0.0076) |
| Size of Owner-Manager Business | 0.17 (0.0147) |
| Adjusted R Square | 0.235 |
| df | 4,131 |
| F | 11.39 |
| Significance | 0.000 |

Significance Level (2-Tailed)
in Parentheses



Entrepreneurial activity promotes competition, economic efficiency and innovation, thereby contributing to economic growth. After two years of decline, entrepreneurial activity in the United States increased from 10.5 percent in 2002 to 11.9 percent in 2003. The 11.9 percent TEA rate is the seventh highest among the 31 countries surveyed in the GEM study and the highest among the G7. This result confirms the dynamism of the U.S. entrepreneurial sector even in a period of relative economic downturn. Entrepreneurship in the United States continues to thrive at very high levels and seems to be moving ahead of the general economic recovery of the country.

The U.S. entrepreneurial landscape exhibits some very strong positive characteristics:

- The culture of the United States is one of seeking opportunities and taking risks. The high ranking of the United States in this area is indicative of the country's distinct entrepreneurial orientation and continues to be a strong differentiating factor.

- Among other things, the U.S. population shows a strong perception of having sufficient skills and abilities to start a new business, relatively low fear of failure, and relatively high alertness to unexploited opportunities.

- The age group most active in entrepreneurial activity in the United States includes people between 25 and 34 years of age with a broad variety of ethnic backgrounds. The U.S. diversity contributes positively and significantly to continuing and expanding the country's entrepreneurial tradition.

- The United States also continues to be a leader in entrepreneurship education and training at the undergraduate and graduate levels. People with a specialized professional, technological, or business school degree exhibit the highest total TEA rate and the highest proportion of opportunity-driven entrepreneurship.

- Finally, the access to physical capital continues being one of the comparative strengths of the U.S. business environment. In particular, the commercial, professional, and physical infrastructures of the country are favorable to entrepreneurial ventures.

Of course, some aspects of the U.S. entrepreneurial environment can be further improved.

In 2003, in the United States, the gender gap in entrepreneurship did not improve with 1.9 men involved in entrepreneurship for every woman. Women make up more than 50 percent of the population and, therefore, represent an enormous potential source of entrepreneurial activity. Hopefully, increased awareness about entrepreneurial opportunities and more exposure to entrepreneurship education will increase the number of younger women with college degrees who start businesses.

Also, although the country provides easy access to physical capital, new and growing firms are at a disadvantage when acquiring the latest technology. This is due in part to the lack of financial capabilities and in part to lack of information.



CONCLUSION

It is to be hoped that strong intellectual property rights laws will further increase R&D transfers and cooperation between university research and newer and growing firms.

There is a need, now more than ever, to build sustainable financing venues without focusing on "venture capital funded IPO quick hits" that were so prevalent in the late 1990s and 2000. Unfortunately, while adjusting its investment strategy following the collapse of the Internet bubble in 2000, the venture capital industry has become averse to investing in seed and start-up companies. This is detrimental to high-potential entrepreneurs who need capital to finance technology-based fledgling companies. It is to be hoped that there will be once again sufficient capital to fund these firms.

Finally, in relative terms, the government policy, programs and market openness indexes for the United States are the closest in value to the world averages among all U.S. indexes. This

suggests that, although the U.S. government is traditionally supportive of entrepreneurial activity, much more can be done to increase the extent to which entrepreneurial framework conditions sustain the efforts of new and potential entrepreneurs.

Overall, entrepreneurs are alert individuals who perceive and exploit profit opportunities. In some cases, entrepreneurs penetrate and expand existing markets and contribute toward economic efficiency by increasing competitiveness. In other cases, in addition to contributing toward market efficiency, entrepreneurs also introduce innovations and explore new opportunities by offering uniquely new products or services. By doing so, innovative entrepreneurs create new markets and expand the set of profit opportunities available to others. Entrepreneurship matters. It matters for individuals, it matters for firms, and it matters for whole countries as well.

Appendix : The GEM Model

The GEM Conceptual Model (FIGURE 20) summarizes the causal mechanisms impacting a country's economy and the complex relationship between the variables. The GEM model has been and will continue to be adjusted as future research continues to broaden our understanding of entrepreneurial activity and how it relates to national economic growth.

The social, cultural, and political context encompasses a range of factors that have been shown to play an important role in shaping a country's national framework conditions. General national framework conditions include the role of government, the level of R&D, the quality and strength of the physical infrastructure, the efficiency of the labor market, and the efficiency and robustness of legal and social institutions. The role of major established firms is important as they provide national representation on a global level. The national framework conditions affect the competitiveness of the major established firms. As competitiveness increases, demand increases, and this increases opportunities for micro, small, and medium firms.

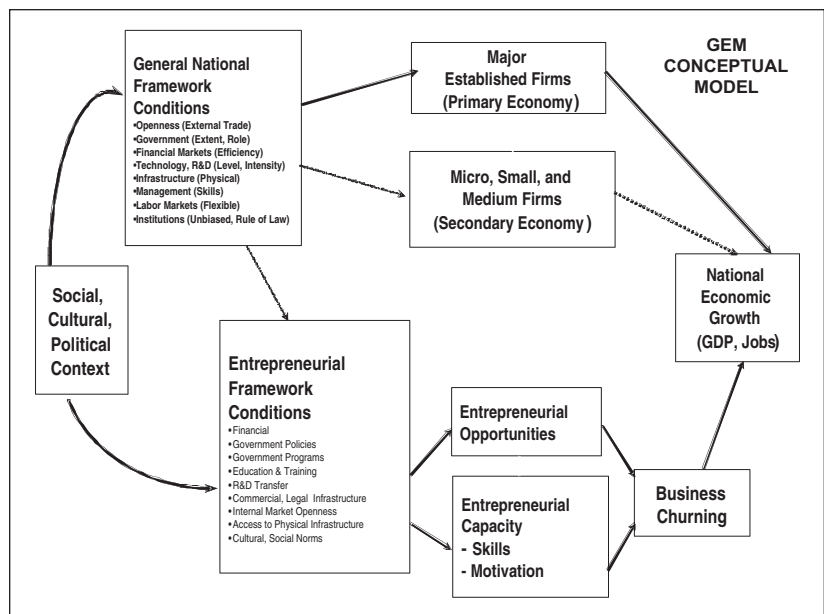
Entrepreneurial framework conditions are composed of nine conditions that shape the overall perception of entrepreneurial opportunities available in an economy and the capacity to exploit such opportunities. The entrepreneurial framework conditions include financial support, government programs, government policies, education and training, research and development

transfer, barriers to entry or market openness, infrastructure, and cultural and social norms. Entrepreneurial opportunities refer to the existence and perception of market opportunities available for exploitation.

Entrepreneurial capacity refers to the motivation of individuals to start new firms and the extent to which they possess the skills required to adequately pursue them. Business churning encompasses the processes whereby new firms start, grow, contract, or die.

Finally, national economic growth incorporates a number of standard economic measures including growth in GDP, changes in employment and per capita income. The continual economic churn associated with the birth, death, expansion and contraction of business firms has been shown to relate closely to the rate of job creation.⁴ It is assumed that as the rate of economic churn increases, the rate of economic growth will increase as well.

FIGURE 20 - GEM CONCEPTUAL MODEL





End Notes

- ¹ For more details on the computation of the FEA Index see pp.8-10 and p.88 in Reynolds et al. 2004
- ² Start-ups are nascent entrepreneurs. That is individuals involved in the initial stage of the entrepreneurial process. New or baby businesses are firms who have been in business for no more than 42 months.
- ³ Previous annual GEM studies reported the prevalence rate of informal investors and the total amount of money that they invest. The prevalence rate has been relatively stable from year to year and although the amount invested has fluctuated somewhat, the difference could be explained by the sampling technique. Hence, the findings offered confidence in pooling the data from the previous five years, 1999 – 2003, thereby increasing the sample size which, in turn, decreased the sampling error. The combined data sets contained more than 22,000 household surveys and almost 800 informal investors.
- ⁴ Reynolds, 1999.

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