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**Barriers to Entrepreneurship
in Emerging Domestic Markets:
Analysis and Recommendations**

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Executive Summary

- Entrepreneurship drives economic innovation and job formation. Business-ownership participation rates vary dramatically among those ethnic groups accounting for the largest demographic growth rates. For example, Hispanics constitute 13.5 percent of the U. S. population, but just 7 percent of business ownership; they employ just 1.3 percent of the work force and represent less than 1 percent of revenues. Similarly, African-Americans account for 12.4 percent of the population, but only 5 percent of the firms and less than 1 percent of both employees and revenues.
- Given emerging patterns of income and wealth disparity, increases in both entrepreneurship and small-business ownership are key policy and program development goals for fostering economic growth and resolving longstanding issues of social welfare.
- This research brief summarizes the diverse empirical literature on factors affecting entrepreneurship and patterns of small-business formation and growth in low- and moderate-income communities in the United States.
- Non-economic discrimination persists as a barrier to business formation. Liquidity constraints — the limits on the amount an entrepreneur can borrow — inhibit both the creation and growth of businesses. Lending, licensing, and other regulations also function as barriers.
- Our research explores “loan bias” — a measure of the share of loans made in low- and low-to-moderate-income communities, relative to their share of the population. We found that disproportionately fewer loans flow to businesses in these communities, even after taking into account other relevant economic and regulatory factors.
- We examine other factors and find that higher levels of self-employment (one proxy for entrepreneurial activity) correlate with population concentrations that are older, poorer, less educated, and more demographically diverse. This suggests that self-employment acts as an alternative to unemployment and lower rates of job creation in core metropolitan economies. Business formation rates for those small firms with more employees are higher in areas with younger populations, higher home-ownership rates, greater numbers of financial institutions, and less loan bias.
- Our study recommends measures that focus on:
 - measuring, monitoring, and managing entrepreneurial programs, including support for more robust and integrated data-collection efforts;
 - bridging the financing gap for small businesses;
 - increasing the number of small-business loan-origination programs and derivative investment vehicles for both securitization and private equity;
 - re-examining tax and regulatory limits to small-business formation in low- and moderate-income communities of all ethnicities;
 - targeting Hispanic and African-American entrepreneurs for financial and management assistance.



Introduction

Entrepreneurship drives economic innovation. Equally important, entrepreneurs drive job formation through self-employment and small-business creation. And it is precisely those jobs that pave a route out of poverty. Substantial research supports all these points.

So it is not surprising to note growing interest among governmental policymakers in the promotion of entrepreneurship and entrepreneurial-friendly conditions, particularly in low- and moderate-income communities. Yet while ample evidence demonstrates the importance of entrepreneurship for advancing social welfare, uncertainty persists about the most important determinants of entrepreneurship and the policies that best support entrepreneurial activity, or at least do not impede it. There is even greater confusion about how to foster entrepreneurship in low- and moderate-income communities.

With ethnic diversity increasing in the United States, and the income and wealth inequality gap continuing to plague many Americans,¹ the need for sensible entrepreneurship policies is even more critical as a means to promote ownership to reduce the bifurcation of wealth and income trends. This policy brief, based on an earlier paper presented to the Federal Reserve Bank of Kansas City and the Ewing Marion Kauffman Foundation,² considers various efforts made over recent years and offers some new thoughts on this issue of national importance.

Entrepreneurship's Impact on the U.S. Economy

As a general rule, the greater a region's entrepreneurial activity, the faster the growth of its local economy.³ Through the process of "creative destruction,"⁴ small firms become larger firms that help sustain the dynamic process of job creation and economic growth. Indeed, "over the past decade, small firms [i.e., firms with fewer than 500 employees] have provided 60 percent to 80 percent of the net new jobs in the economy, and ... almost all these net new jobs stem from startups in the first two years of operation."⁵

¹ Income and wealth are becoming increasingly concentrated, see I. Drew-Becker and R. J. Gordon, "Where did the Productivity Growth Go? Inflation Dynamics and the Distribution of Income," *Brookings Panel on Economic Activity*, 2005:2, Washington, D. C., September 8-9, 2005. Moreover, there is evidence that historical income mobility in the U. S. has slowed dramatically since the 1990s and that economic class is becoming increasingly calcified, see work on family income mobility by K. Bradbury and J. Katz, "Are Lifetime Incomes Growing More Unequal?" *Regional Review*, Federal Reserve Bank of Boston, October 2002.

² J. Barth, G. Yago and B. Zeidman, "Stumbling Blocks to Entrepreneurship in Low- and Moderate-Income Communities," presented at "Entrepreneurship in Low- and Moderate-Income Communities," a research conference sponsored by the Federal Reserve Bank of Kansas City and the Kauffman Foundation, November 3, 2005.

³ Z. Acs and C. Armington, "Employment Growth and Entrepreneurial Activity in Cities," working paper for the Discussion Papers on Entrepreneurship, Growth and Public Policy, March 2004.

⁴ J. Schumpeter, *Capitalism, Socialism and Democracy*, New York: Harper, 1975, pp. 75-82.

⁵ U.S. Small Business Administration Office of Advocacy and the Ewing Marion Kauffman Foundation, "Entrepreneurship in the 21st Century," conference proceedings from March 26, 2004.

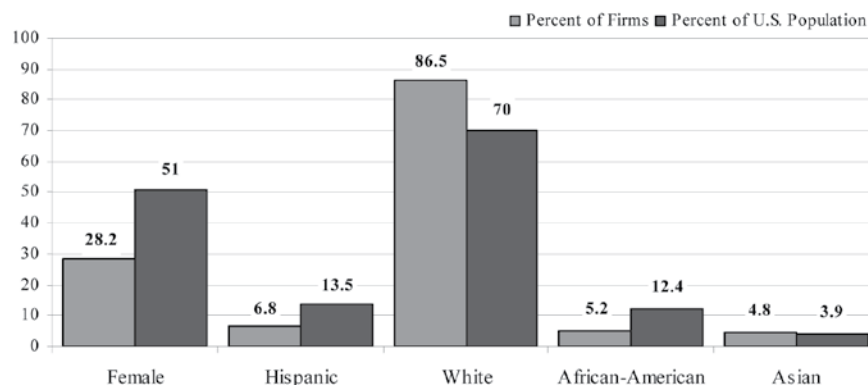


Table 1 illustrates the importance of small business. It shows that these firms (i.e., those with fewer than 500 employees) account for 99 percent of all firms in the United States, 86 percent of all establishments, 50 percent of total employment, 45 percent of annual payroll, and 39 percent of total receipts. Enterprises with 0–5 employees, moreover, represent 47 percent of all firms and 37 percent of all establishments.⁶ These enterprises, not surprisingly, account for only 5 percent of employment and 4 percent of annual payroll and receipts. Yet, as noted above, through creative destruction, the continuing emergence of small firms yields creative survivors that evolve into large companies, driving a dynamic economy.

Business-formation rates in America’s emerging domestic markets (women and ethnic groups, which are over-represented in low- and moderate-income communities) are even more striking. Between 1997 and 2002, the number of firms owned by minorities grew at three times the rate that of firms in general — a fact that reflects the reality that ethnic communities in the United States are expanding rapidly.⁷ Indeed, more than 85 percent of the estimated population growth between now and 2050 will come from minority groups.⁸

Still, a close look at the breakdown of distribution of business ownership by race, gender, and ethnicity relative to the distribution of receipts, employees, and payroll, reveals significant imbalances (see figure 1 below). Women, for example, are significantly underrepresented as majority owners of firms, and the underrepresentation only increases as one goes up the ladder, in terms of firm revenues and payrolls. Much the same can be said of Hispanics — who account for 13.5 percent of the population, but just 7 percent of all firms, 1.3 percent of employees, and less than 1 percent of revenues. African-Americans account for 12.4 percent of the population, but only 5 percent of firms and less than 1 percent of both employees and revenues.⁹ By contrast, for Asian-Americans, the percentages of firm employees and receipts are in approximate parity to the group’s percentage of the population as a whole, and they own a share of firm numbers higher than their share of population.

Figure 1: Characteristics of Minority Firms



⁶ Firms can contain multiple establishments, which are defined by the U.S. Census Bureau as a “single physical location at which business is conducted.” See Appendix 1 for definitions of these and other terms frequently used in studies of entrepreneurship.

⁷ U.S. Census Bureau, Survey of Business Owners, 2002.

⁸ U.S. Census Bureau, Population Division, interim projections consistent with Census 2000, March 2004.

⁹ U.S. Census Bureau, Survey of Business Owners, 2002.



These imbalances raise questions about access and potential stumbling blocks to individuals in different demographic groups. The fact that many of these individuals are also in low- and moderate-income communities intensifies the urgency of such questions. To limit their individual entrepreneurial opportunities is to limit the chances for their communities to achieve prosperity.

Entrepreneurship and Access – Understanding the Barriers

A significant obstacle to understanding and fostering entrepreneurship results from the basic difficulty in reaching consensus on the answer to “what is an entrepreneur?” Economists studying the field use different definitions, depending on the economic theory in place. Theoretical models tend to identify innate differences in talents or in attitudes toward risk as the reason some individuals may become entrepreneurs and others wage or salary workers.¹⁰ As Holtz-Eakin, Joulfaian, and Rosen state, “In the non-statistical literature ... entrepreneurs are characterized in terms of their daring, risk-taking, animal spirits, and so on. ...”¹¹

Empirical models, however, require a more concrete, measurable way to identify entrepreneurs. Yet these too are marked by variation in definition. Among the empirical studies of entrepreneurship, Evans and Leighton,¹² Blanchflower and Oswald,¹³ and Fairlie¹⁴ use self-employment to define entrepreneurs. Gentry and Hubbard use business ownership;¹⁵ Meyer uses both self-employment and business ownership;¹⁶ and Holtz-Eakin, Joulfaian, and Rosen define those who file IRS form 1040 Schedule C as entrepreneurs.¹⁷

¹⁰ R. Kihlstrom and J. J. Laffont, “A General Equilibrium Theory of Firm Formation Based on Risk Aversion,” *The Journal of Political Economy*, 87(4)/1979: 719-48, p. 720 and R. Lucas, “On the Size Distribution of Business Firms,” *Bell Journal of Economics*, 9(2)/1978: 508-523, p. 510.

¹¹ D. Holtz-Eakin, D. Joulfaian, and H. Rosen, “Sticking It Out: Entrepreneurial Survival and Liquidity Constraints,” *The Journal of Political Economy*, 102(1)/1994: 53-75.

¹² D. Evans and L. Leighton, “Some Empirical Aspects of Entrepreneurship,” *The American Economic Review*, 79(3)/1989: 519-535.

¹³ D. Blanchflower and A. Oswald, “What Makes an Entrepreneur?,” *Journal of Labor Economics*, 16(1)/ 1998: 26-60.

¹⁴ R. Fairlie, “The Absence of the African-American Owned Business: An Analysis of the Dynamics of Self-Employment,” *Journal of Labor Economics*, 17(1)/1999: 80-108.

¹⁵ W. Gentry and R. G. Hubbard, “Entrepreneurship and Household Saving,” *Journal of Advances in Economic Analysis & Policy*, 4(1)/2004: Article 8.

¹⁶ B. Meyer, “Why are there so Few Black Entrepreneurs?” working paper No. 3537 for the National Bureau of Economic Research, 1990.

¹⁷ Holtz-Eakin, Joulfaian, and Rosen, 1994.



An Abundance of Research, a Paucity of Answers

Ironically, much of the confusion results from the increasing attention to entrepreneurship by researchers, yielding a plethora of databases rarely comparable and sometimes contradictory. Some datasets enable researchers to study the same individuals or groups over time to determine the factors explaining why they choose self-employment over working. Other datasets allow researchers to examine new-business startups or ongoing small businesses over time and across geographical regions. Table 2 provides information on the most widely used databases for studies focusing on the United States.

Though these studies differ by type, they all usually include information on the characteristics of the self-employed, the characteristics of business owners, the characteristics of the business, and the sources of funding for becoming self-employed or establishing or owning a business. (Table 3 outlines each study specifically.) Since each study relies on different datasets, the results vary according to the study's intent and methodology and often contradict the conclusions of other studies. For example, consider two questions of relevance in understanding entrepreneurship:

- **Why do some individuals become entrepreneurs, while others do not?**

Puri and Robinson find that entrepreneurs are innately more optimistic and risk-loving than those who become wage or salary workers.¹⁸ Meanwhile, Guiso and Schivardi argue that entrepreneurship can be learned, irrespective of such attitudinal differences.¹⁹ Family background may play a role. Blanchflower and Oswald find that the receipt of an inheritance seems to increase an individual's probability of being self-employed,²⁰ and Fairlie and Robb discuss how prior work experience in a family-owned business has positive effects on business outcomes.²¹

- **What factors most affect the process of starting or owning a small business, or becoming self-employed?**

Blanchflower and Oswald,²² and Holtz-Eakin, Joulfaian, and Rosan²³ find that liquidity constraints are barriers to entrepreneurship; Vos, Yeh, Carter, and Tagg²⁴, Hurst and Lusardi,²⁵ and Moore²⁶ do not. Mitchell

¹⁸ M. Puri and D. Robinson, "Optimism and Economic Choice," prepared for the AFA 2006 Boston Meetings Papers, 2005.

¹⁹ L. Guiso and F. Schivardi, "Learning to Be an Entrepreneur," working paper, 2004.

²⁰ D. Blanchflower and A. Oswald, "What Makes an Entrepreneur?," *Journal of Labor Economics*, 16(1)/1998: 26-60.

²¹ R. Fairlie and A. Robb, "Families, Human Capital and Small Business: Evidence from the Characteristics of Business Owners Survey," Working paper No. 1296 for the Institute for the Study of Labor IZA, and No. 871 for the Economic Growth Center, Yale University, 2004.

²² Blanchflower and Oswald, 1998.

²³ Holtz-Eakin, Joulfaian and Rosen, 1994.

²⁴ E. Vos, A. Jia-Yuh Yeh, S. Carter and S. Tagg, "The Happy Story of Small Business Financing," working paper, 2005.

²⁵ E. Hurst and A. Lusardi, "Liquidity Constraints, Household Wealth, and Entrepreneurship," *The Journal of Political Economy*, 112(2)/2004: 319-347.

²⁶ K. Moore, "Do Liquidity Constraints Matter for New Entrepreneurs?," working paper No. 2004-42 of the Federal Reserve System Finance and Economics Discussion Series, 2004.



and Pearce find prejudicial loan discrimination against African-American and Hispanic owners of small businesses.²⁷ Bostic and Lampani find loan racial disparity for African-American-owned, but not Hispanic-owned businesses.²⁸ Meyer finds that liquidity constraints do not seem to explain the low African-American self-employment rate.²⁹ Black and Strahan find that increased numbers of bank branches and greater consolidation in the banking industry foster entrepreneurship.³⁰ Mitchell and Pearce argue that the move by larger banks to transactional lending through credit scores and “hard” information may lead to greater loan discrimination against small businesses. Peterson and Rajan find that small businesses at a distance from lenders no longer have to be the highest-quality credits, indicating they have greater access to credit.³¹ Brevoort and Hannan find no evidence that distance is becoming less important but do find that distance is negatively associated with the likelihood of a local commercial loan being made.³² Finally, DeYoung, Glennon, and Nigro find that lenders making loans made to small businesses under the SBA 7(a) loan guarantee program experience higher default rates with greater borrower-lender distance and higher loan guarantees.³³

As table 3 suggests, it is difficult to compare studies that use different factors and datasets to measure entrepreneurship. Yet the omission of any important factors may bias whatever results one obtains from a single dataset. A standard for integrating the information in datasets — and the additional information needed — would better enable policymakers to promote entrepreneurship.

An alternative way to consider the diverse findings is to differentiate between barriers that are amenable to policy and those that are not. This would help policymakers focus on the key areas where intervention might have impact. Table 4 attempts just such an approach. It shows that the studies differ in the identification of barriers, and that where there may be consensus on a barrier, differences surface with respect to its significance.

²⁷ K. Mitchell and D. Pearce, “Discrimination, Competition, and Relationship vs. Transaction Lending to Small Businesses: Evidence from the 1998 Survey of Small Business Finances,” preliminary draft, November 2004.

²⁸ R. Bostic and P. Lampani, “Racial Differences in Patterns of Small Business Finance: The Importance of Local Geography,” presented at the Federal System Research Conference on Business Access to Capital and Credit, Arlington, Va., March 8, 1999.

²⁹ Meyer, 1990.

³⁰ S. Black and P. Strahan, “Entrepreneurship and Bank Credit Availability,” *The Journal of Finance*, 58(6)/2002: 2807-2833.

³¹ M. Petersen and R. Rajan, “Does Distance Still Matter? The Information Revolution in Small Business Lending,” *The Journal of Finance*, 57(6)/2002: 2533-2570.

³² K. Brevoort and T. Hannan, “Commercial Lending and Distance: Evidence from Community Reinvestment Act Data,” working paper no. 2004-24 of the Federal Reserve Finance and Economics Discussion Series, 2004.

³³ R. DeYoung, D. Glennon, and P. Nigro, “Borrower-Lender Distance, Credit Scoring, and the Performance of Small Business Loans,” presented at the FDIC 5th Annual Banking Research Conference: Financial Sector Integrity and Emerging Risks in Banking, September 22, 2005.



Despite the clear variation in findings, analysis and conclusions among the many studies, agreement does appear to exist on several points:

- Discrimination, particularly against African-Americans, is a barrier to entrepreneurship.
- The existence of entrepreneurial firms in a region helps spur the establishment of still more such firms.
- Governmental regulations can be stumbling blocks to entrepreneurship.
- Liquidity constraints — arbitrary limits on the amount an entrepreneur can borrow — inhibit the rate and growth of business formation.

Another approach to understanding barriers to entrepreneurship is to ask the entrepreneurs themselves. Every four years, the National Federation of Independent Business surveys small-business owners across the country. Table 5 summarizes the findings of the most recent survey, “Small Business Problems & Priorities.” Entrepreneurs stressed a variety of problems beyond the reach of government (such as low margins in a competitive market). Among problems that policymakers could help solve: the cost of workers’ compensation insurance (ranked third in importance), business taxes (ranked fifth), property taxes (ranked sixth), and “unreasonable” government regulation (ranked ninth).

Substantial anecdotal evidence suggests that regulations are stumbling blocks. For instance, Cleveland, Ohio, requires any new taxicab company to have a fleet of at least 25 cars — all of which must be three years old or newer. Akron, Canton and Dayton all require potential taxicab operators to convince government officials that their firms will meet so-called “public convenience and necessity” requirements before they may begin operation. California requires licensing for such professionals as landscape architects and interior decorators. Nationally, some five hundred occupations (including fence installers and courtroom stenographers) have licensing requirements.

Lending regulations may also act as stumbling blocks. While intended to benefit borrowers, these regulations can have the perverse effect of decreasing the availability of businesses loans. Bankruptcy exemption regulations provide one such example. The liabilities of unincorporated firms are personal liabilities of the firms’ owners; thus, an increase in personal bankruptcy exemptions decreases the recovery value of defaulted loans and may increase the cost of loans and decrease their availability. Berkowitz and White find that high exemption levels “are associated with an increase in the probability of non-corporate firms being denied credit.”³⁴ Persad finds that personal bankruptcy exemption levels are positively associated with both default rates and interest rates on loans.³⁵ Barth, Cordes, and Yezer find that restrictions on creditor remedies (such as wage garnishment, wage assignment, and deficiency judgments) have net costs to borrowers in the personal loan market.³⁶ This result directly applies to small businesses, as many small-business owners fund their operations with personal liabilities.³⁷

³⁴ J. Berkowitz and M. J. White, “Bankruptcy and Small Firms’ Access to Credit,” Michigan Law and Economics Working Paper No. 00-005, June 2000.

³⁵ S. Persad, “Bankruptcy Exemptions and Small Business Credit Re-examined: Using Loan Guarantees to Isolate Borrower Moral Hazard Behavior,” working paper, Columbia University, 2004.

³⁶ J. Barth, J. Cordes and A. Yezer. “Benefits and Costs of Legal Restrictions on Personal Loan Markets,” *Journal of Law and Economics*, 29(2)/1986: 357-380.

³⁷ U.S. Federal Reserve Board, Survey of Small Business Finances, 1998.



Credit Access and Liquidity Constraints

Despite the multiplicity of findings and opinions regarding the roots and nurturing of entrepreneurship, empirical research consistently suggests that liquidity constraints — arbitrary limits on the amount an entrepreneur can borrow — inhibit the rate and growth of business formation. By raising the costs or limiting the availability of credit, such constraints prevent entrepreneurs from optimizing their performance over time.

The Community Reinvestment Act (CRA) of 1977 requires that banks channel a portion of their funds to the communities in which they are located. This might lead one to assume that CRA would limit credit constraints, and that the share of bank lending to the low-income (LI) and low- to-moderate income (LMI) communities in a service area would mirror the LI/LMI share of population in the area. To analyze data on liquidity in LI/LMI communities, we crafted a measure called “loan bias” — a measure of the share of total loans made in LI/LMI communities, relative to their share of the population. Using data from 2000 collected by the U.S. Census and the Federal Reserve Board for 280 Metropolitan Statistical Areas (MSAs), we found that the number of loans made to individuals and businesses was smaller than one would expect based solely on population figures.³⁸ Figure 2, on the following page, highlights loan bias in selected large MSAs.

³⁸ We do not use the term “loan bias” in a pejorative sense; in fact, what may at first appear to be bias often requires closer inspection to determine whether this is indeed the case.



Figure 2: Loan Bias in Selected Large MSAs
(share of loans relative to share of population)

Selected MSA	LMI Loan Bias	LI Loan Bias
Los Angeles-Long Beach, CA	0.25	0.58
Atlanta, GA	0.50	0.86
Dallas, TX	0.49	0.80
Riverside-San Bernardino, CA	0.45	0.80
Phoenix-Mesa, AZ	0.21	0.53
Minneapolis-St. Paul, MN-WI	0.69	0.79
Orange County, CA	0.17	0.79
San Diego, CA	0.41	0.92
St. Louis, MO-IL	0.61	0.76
Seattle-Bellevue-Everett, WA	0.31	0.89
Tampa-St. Petersburg-Clearwater, FL	0.45	0.96
Oakland, CA	0.44	0.52
Pittsburgh, PA	0.51	0.92
Miami, FL	0.27	0.64
Kansas City, MO-KS	0.44	0.79
San Francisco, CA	0.21	0.41
San Jose, CA	0.11	0.65
Orlando, FL	0.45	0.81
Sacramento, CA	0.34	0.73
Fort Lauderdale, FL	0.39	0.63
Indianapolis, IN	0.45	0.75
San Antonio, TX	0.43	0.79
Norfolk-Va. Beach-Newport News, VA-NC	0.54	0.77
Las Vegas, NV-AZ	0.50	0.89
Columbus, OH	0.40	0.47
Charlotte-Gastonia-Rock Hill, NC-SC	0.35	0.64
New Orleans, LA	0.38	0.78
Salt Lake City-Ogden, UT	0.05	0.61
Austin-San Marcos, TX	0.59	0.83
Nashville, TN	0.29	0.72



This result is not entirely surprising; in free and competitive markets, one might expect differences in loan bias across regions — but differences that reflect economic factors, like the creditworthiness of businesses. We thus conducted a second analysis to determine whether, in fact, disproportionately fewer funds may flow to businesses in LI/LMI communities in part because the incomes in those areas are also disproportionately lower than in other areas of the MSAs. In this case, loan bias measured the share of total loans made in LI/LMI communities, relative to their share of the total area income. On average, the share of the total amount of loans made to businesses is actually greater than the LI/LMI community share of total income in the MSAs. Yet beyond the averages, we still found that a majority percentage of LI communities and 13 percent of the LMI communities experience loan bias.

It is obviously important to determine whether any loan bias exists after one takes into account the relevant economic and regulatory factors that influence the extension of credit to businesses in different geographical areas. We thus used statistical analysis to distinguish factors other than loan bias (e.g., demographics, sales tax, available financial services, etc.) that could help to explain variation in entrepreneurship (represented here by total number of businesses) across MSAs. The results, discussed in detail in the original paper “Stumbling Blocks to Entrepreneurship in Low- and Moderate-Income Communities,”³⁹ indicate that several factors are significant for entrepreneurship measured in this manner. The exact way in which these factors relate to entrepreneurship varies, depending on the size of the establishment.

In MSAs that have the largest percentage of zero-employee establishments (the self-employed), we find a lower share of the population aged 25–44, higher household income, a smaller the percentage of labor force with a college degree, a smaller share of the labor force that has a high school diploma or less, and a larger racial/ethnic mix in the population. These areas have a greater number of loans to LI/LMI communities, but the loans sizes are smaller on average. Our findings are similar in MSAs with the largest share of establishments with 1–10 employees. This suggests that self-employment is associated with population concentrations that are older, poorer, less educated, and more demographically mixed, as an alternative to unemployment and lower rates of job creation.

Conversely, the greater the share of total of 11–100 employee establishments, the greater the share of the population aged 25–44, the higher the poverty rate, the higher the state sales tax rate, and the higher the average loan size. In MSAs with a greater share of establishments with more than 100 employees, we find a lower racial/ethnic mix, higher state sales tax rate, a larger average loan size and a higher share of total loans to businesses in their moderate-income communities.

When we analyze the relationship of these variables to the total number of establishments in an MSA (regardless of size), we find that only four factors are significant: the share of population in the 25–44 age group (the age of most entrepreneurs), the homeownership rate (not surprising, as homes are frequently used as collateral for business loans), the number of financial institutions in the MSA (indicating the availability of capital), and the total number of loans made (indicating capital actually provided). The size of the pool of potential entrepreneurs, as measured by those of younger ages, the link between home- and businessownership, and the accessibility of financial services are all factors encouraging entrepreneurship.

³⁹ J. Barth, G. Yago and B. Zeidman, “Stumbling Blocks to Entrepreneurship in Low- and Moderate-Income Communities,” presented at the Federal Reserve Bank of Kansas City and the Kauffman Foundation, November 3, 2005.



Actions to Drive Impact

Given what we know from the empirical literature, anecdotal evidence, and our own analysis, we offer several suggestions aimed at increasing entrepreneurial activity in emerging domestic markets, particularly in low- and moderate-income communities:

- **Measure, monitor and manage efforts to support entrepreneurship**

Researchers use different measures of entrepreneurship and widely varying sets of data. This limits the ability to compare their work, making it less useful in understanding entrepreneurship and designing effective policies. An integrated dataset could improve upon the information by pooling data from diverse public and private sources, creating a continuous loop of improvement and opportunities for collaboration. The Milken Institute recently completed a study (supported by the Ford Foundation) that maps the data providers and explores the feasibility of creating a consortium database open to all serious researchers.⁴⁰

- **Bridge the financing gap**

Our calculations of loan bias suggest that even when accounting for income disparity, the business communities in many LI and LMI areas obtain far less capital than should be expected, hampering their ability to grow. In general, our first measure of loan bias (based on population) indicates that LI/LMI firms receive a significantly smaller share of the total amount of loans. Our second measure of loan bias (based on income) suggests that the lending gap exists in a large number of MSAs. To the extent that this bias is not explainable by economic factors or regulatory barriers, then incentives provided through Capital Access Programs (in which lenders, borrowers and the government each contribute to a reserve fund to cover loan losses) and other state and federal programs may be appropriate to help close the gaps.⁴¹

- **Increase small business loan-origination and investment vehicles**

Financing is clearly critical to entrepreneurship. MSAs with fewer financial institutions and larger average loan sizes tend to have a smaller share of total establishments with fewer than 10 employees (potentially the most entrepreneurial establishments or those most associated with new startups). One way to increase small-business loan origination would be to increase the securitization of such loans. This would allow small-business lenders to sell portions of their loan portfolios and use the proceeds to originate more loans. Additionally, creating ratable investment products secured by these loans would enable large, institutional investors to support entrepreneurship in a more cost-effective manner.

Note, too, that while the focus here is on lending programs, many entrepreneurs must build their businesses with equity, not debt capital. Indeed, until a business has a track record, it is typically difficult to qualify for a loan. And while entrepreneurs in wealthier areas may be able to tap savings, credit cards, family, and friends, those in low-income communities are often at a loss for sources of equity. Several programs attempt to meet

⁴⁰ G. Yago, B. Zeidman and J. Sederstrom, “Increasing Market Capital to EDM/LMI Communities: Developing a Data Consortium and Financial Innovations Lab,” Milken Institute working paper for the Ford Foundation, April 2006.

⁴¹ G. Yago, B. Zeidman and B. Schmidt, *Creating Capital, Jobs and Wealth in Emerging Domestic Markets: Financial Technology Transfer to Low-Income Communities*, Milken Institute, 2003.



this need, including community development venture capital funds, mezzanine debt funds, and the federal government's New Markets Tax Credit, but more innovation is needed.

- **Reach out to African-Americans and Hispanics**

African-American- and Hispanic-owned firms continue to face greater difficulty accessing financing. Discrimination appears to persist, exacerbated by the generally smaller size of these firms and higher concentration of larger firms in MSAs with significant African-American and Hispanic populations. This suggests a continuing need for efforts to extend capital, as well as other forms of support, to these entrepreneurs. This is particularly important when one considers that the number of these firms is growing faster than the rate of all firms, and that access to capital is probably a major issue in determining whether they can reach the size needed to compete effectively and generate the growth necessary to drive overall U.S. economy.

- **Re-examine tax and regulatory policies that impede entrepreneurship**

Often, well-meaning regulations have unanticipated consequences. As described above, bankruptcy exemptions intended to shelter borrowers have in fact hurt them because it reduces lenders' willingness to take chances. The multiple implications of tax and regulatory actions, and their impact on entrepreneurial growth, need to be carefully considered.

- **Take advantage of well-developed education programs with targeted outreach**

Individuals can learn to become entrepreneurs. The existence of entrepreneurial firms in a region spurs the growth of more such firms. There is no reason to assume this cluster effect would not operate just as powerfully in LI and LMI communities. Programs, such as the Ewing Marion Kauffman Foundation's FastTrac⁴² and Pacific Community Ventures' Business Advisory Services,⁴³ can produce greater entrepreneurial development in communities and increase the likelihood of more new businesses being established throughout the country.

What's Next?

More work is needed to better understand the determinants of entrepreneurial activity. But the recommendations noted here provide a useful starting point for sharpening our understanding of entrepreneurship and focusing policy on high-impact activity that could generate activity in emerging domestic markets. This would affect the overall U.S. economy, benefiting all the nation's communities.

⁴² FastTrac, <http://www.fasttrac.org/>, (accessed April 2006).

⁴³ Pacific Community Ventures, <http://pacificcommunityventures.org/ourservices/#businessadvising>, (accessed April 2006).



Tables

Table 1. Number of Firms, Number of Establishments, Employment and Annual Payroll by Employment Size of the Enterprise

Data Type	Total	Employment Size of the Enterprise													
		0	%	1-4	%	5-9	%	10-19	%	20-99	%	100-499	%	500+	%
Firms (thousands)	5,698	770	14%	2,696	47%	1,011	18%	614	11%	508	9%	82	1%	17	0%
Establishments (thousands)	7,201	771	11%	2,699	37%	1,024	14%	653	9%	693	10%	333	5%	1,028	14%
Employment (thousands)	112,401	0	0%	5,698	5%	6,640	6%	8,246	7%	19,874	18%	15,909	14%	56,034	50%
Annual Payroll (US\$ billions)	3,943	38	1%	156	4%	182	5%	241	6%	624	16%	536	14%	2,166	55%
Receipts (US\$ billions)	22,063	215	1%	938	4%	888	4%	1,086	5%	2,885	13%	2,547	12%	13,504	61%

SOURCE: 2002 County Business Patterns.



Table 2. Selected Information on Databases Used in Studies of Entrepreneurship

Data Source	Database Overview				Characteristics of Business Owners						Characteristics of Businesses				Sources of Funding			
	Sponsor	Availability	Earliest Year and Frequency	Survey Unit	Race/Ethnicity	Gender	Marital Status	Age	Education	Work Experience	Self Employed	Geographic Location	Age of Business	Employment Size	Financial Information	Start-Up Capital	Loans (public, private)	Venture Capital
Characteristics of Business Owners (CBO) www.census.gov/cbd/cbo	U.S. Census Bureau	Available online for download, or ordered offline by CD	1982, every 5 years, last survey for 1992 (now discontinued)	Establishments	N	Y	Y	Y	Y	Y	Y	Y	Y	Y, Receipts and profits	Y	Y	Y	Y
National Longitudinal Survey of the Youth (NLS) stats.bls.gov/nls	U.S. Department of Labor	Data available online for free, or ordered by CD for small fee	1969, 1979, 1997	Age and gender cohorts	Y	Y	Y	Y	Y	Y	Y, regions only	Y	N	N	N	N	N	N
VentureOne www.ventureone.com	VentureOne	By subscription only	1982, quarterly	Venture-backed firms	N	Y	N	N	N	Y	Y, city level	Y		Y	Y	N	Y	Y
Survey of Income and Program Participation (SIPP) www.ipeds.census.gov/sipp	U.S. Census Bureau	Data available for download from on-site	1984, frequency varies	All household members 15+ years	Y	Y	Y	Y	Y	Y	Y, metro and state levels	N	Y	N	N	N	N	N
Non-Employee Statistics www.census.gov/epd/ineemp/nyer	U.S. Census Bureau	Data available for download from on-site	1997, annual	Firms with no employees, \$1,000+ sales, file schedule C, 1965, 1120 series	N	N	N	N	N	Y	Y, MSA, county, state levels	N	Y	Y, Receipts and payroll	N	N	N	N
National Federation of Independent Business (NFIB) www.nfib.com	NFIB	Not available to public	1973, quarterly and monthly	members of NFIB organization only (600,000 members)	N	N	N	N	N	Y	Y	Y	Y	Y	N	Y	N	N
Survey of Minority-Owned Business Enterprises (SMOBE) www.census.gov/cbd/mweb	U.S. Census Bureau	Free online	1992, every 5 years, because SBO after 1997	Firms and establishments	Y	Y	N	N	N	Y	Y, State, County, MSA, or City	N	Y	Y, Sales and payroll	N	N	N	N
Survey of Small Business Finances (SSBF) fedatranscend.gov/pub/son	Federal Reserve and Small Business Administration	Free online - 2003 not yet available	1987, about every 5 years (1987, 1993, 1998, 2003)	Firms with fewer than 500 full-time employees	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Data and Business (DMB) www.dmb.com	Data and Business	Available for purchase. Price based on the number of records requested	1841; 1969 electronic records, monthly	Company	Y, if offered by owner	Y, if offered by owner	N	Y, if offered by owner	Y, if offered by owner	Y	Y	Y	Y	Y	N	N	N	N
Community Reinvestment Act (CRA) www.ffiec.gov	Federal Financial Institutions Examination Council	Free online - Data aggregated by census tract level	1996, annual	State banks, national banks, and large saving associations (\$250M+)	N	N	N	N	N	N	Y, State, County, and MSA	N	N	Y, Census tract	N	Y	N	N
Survey of Business Owners and Self-Employed Persons (SBO) www.census.gov/cbd/sbo	U.S. Census Bureau	Partial report available online, complete release in 2005	2002; superseded SBOBE, every 5 years	Partnerships, proprietorships, corporations with receipts of \$1,000+	Y	Y	N	Y	N	Y	Y	Y	Y	Y, Sales	Y	Y	Y	Y
Panel Study of Income Dynamics (PSID) pubs.lib.umd.edu	Department of Commerce and University of Michigan	Available for download free online	1968	8,000 U.S. households	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
Survey of Consumer Finances (SCF) www.federalreserve.gov/pub/scf	Federal Reserve Board	Available for download free online	1983, every three years	4,500 U.S. families	Y	Y	Y	Y	Y	Y	N	Y	Y	Y, Net income and sales	Y	Y	Y	Y
Business Information Tracking Series (BITS) www.census.gov/cbd/bits	U.S. Census Bureau	Available for download free online	1988, annual	Establishments (longitudinal)	N	N	N	N	N	Y	Y	N	Y	Y	N	N	N	N
Panel Study of Entrepreneurial Dynamics (PSIED) www.psied.umich.edu	University of Michigan and Kauffman Center	Available for download free online	1998 only	U.S. adults	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y



Table 3. Studies Examining Different Levels of Entrepreneurial Activity over Time and Geographical Areas

Author(s)	Purpose	Entrepreneurial Focus	Data	Results	Policy Implications
Barth, Cordes, and Yezer (1986)	Estimate the benefits and costs of restricting creditor remedies on personal loan transactions.	Individual borrowers, including both self-employed and non-self-employed.	Individual personal loan transactions from national consumer finance companies operating in 45 states.	Restricting the use of creditor remedies does not confer net benefits on the typical borrower but rather imposes net costs.	Creditor remedies affect access to credit to loans.
Barth, Gouir, Manage, and Yezer (1983)	Examine the effect of selected government regulations on a high-risk personal loan market.	Individual borrowers, including both self-employed and non-self-employed.	Individual personal loan transactions from national consumer finance companies operating in 45 states.	Borrower characteristics, collateral and creditor remedies all matter in the price and loan amount granted.	Legal and regulatory variables can affect access to credit.
Berger and Udell (1994)	Examine the role of relationship lending, especially price and nonprice terms of commercial bank lines of credit extended to small firms.	Small, untraded firms.	National Survey of Small Business Finances (1988-89).	Borrowers with longer banking relationships tend to pay lower interest rates and are less likely to pledge collateral.	Bank-borrower relationship is likely to be an important mechanism for solving asymmetric information problems associated with small businesses.
Black and Strahan (2002)	Test whether more competition and consolidation in the banking sector helps or hinders entrepreneurship by limiting the availability of credit to small and young firms.	Entrepreneurial activity is measured as the log of new business incorporations per capita during a year.	1976-1994, Dun and Bradstreet.	Rate of new incorporations increases following deregulation of branching and increases as the deposit share of small banks declines.	More competition through branching and greater consolidation help entrepreneurship.
Blanchflower and Oswald (1998)	Explore the factors that may be important in determining who becomes an entrepreneur.	Self-employed.	British longitudinal data on children born in 1958 and followed through 1991, among other data.	The receipt of an inheritance or gift seems to increase a typical individual's probability of being self-employed. Also, information indicates individuals prefer to be self-employed but lack capital and money.	Potential entrepreneurs face borrowing constraints.
Bostic and Lampani (1999)	Examine whether small businesses' local geography have been inappropriately omitted from analyses of differences in the credit market experiences of White-owned and minority-owned firms.	Businesses with fewer than 500 employees.	1993 National Survey of Small Business Finance.	No statistically significant differences exist in the approval rates between White-owned firms and firms owned by Asians, Hispanics and women, but differences exist between white-owned and black-owned firms.	Economics and demographic characteristics of a firm's geography should be considered in order to understand racial disparities of small business finance.
Brevoort and Hannan (2004)	Examine the relationship between distance and commercial lending and how it has evolved over time.	Small businesses.	CRA annual data from 1997-2001.	Distance is negatively associated with the likelihood of a local commercial loan being made and that the deterrent effect of distance is consistently more important, the smaller the bank.	Distance may be of increasing importance in local market lending.



Table 3 (continued). Studies Examining Different Levels of Entrepreneurial Activity over Time and Geographical Areas

Author(s)	Purpose	Entrepreneurial Focus	Data	Results	Policy Implications
Cavalluzzo and Wolken (2002)	Examine the impact of personal wealth on small business loan turn downs across demographic groups.	Businesses with fewer than 500 employees.	1998 Survey of Small Business Finances, Dun and Bradstreet, and Federal Reserve System data.	Substantial unexplained differences in denial rates between African American-, Hispanic-, Asian- and white-owned firms. Greater personal wealth is associated with lower probability of loan denial.	Racial disparities exist even after controlling for various constraints.
DeYoung, Glennon, and Nigro (2004)	Examine how increased borrower-lender distance worsens the performance of small business loans, and how new lending technologies and existing government subsidies may mitigate or exacerbate these effects.	Small business loans made to firms under SBA 7(a) loans program.	Random sample of 35,999 SBA 7(a) guaranteed loans originated by 5,552 qualified SBA program lenders between 1983 and 2001.	On average, lenders that use credit scoring models experience higher default rates than those that do not. Loan defaults increase with borrower-lender distance, and higher loan guarantees are associated with higher default rates.	More generous government loan guarantees may not generate desired results.
Dunn and Holtz-Eakin (2000)	Examine the impacts of individual's own wealth and human capital and parental wealth and self-employment experience on the probability that an individual transits from wage-and-salary to self-employment.	Self-employed.	National Longitudinal Surveys. Specifically, samples of young men who were age 14-24 in 1966, mature women who were age 30-44 in 1967 and older men who were age 45-59 in 1966.	The financial assets of young men exert a statistically significant but quantitatively modest effect on the transition into self-employment. Using this as our metric, they find a relatively small impact of capital market constraints in the NLS.	These data suggest strong roles for family-specific capital and transmission of skills within families in enhancing the probability of making a transition to entrepreneurship.
Evans and Leighton (1989)	Examine the process of selection into self-employment over the life cycle and the determinants of self-employment earnings.	Self-employed.	National Longitudinal Survey, sample of men followed from 1966-1981.	Probability is higher of being self-employed for unemployed and more highly educated, but not related to age or experience for first 20 years of experience. Also, return to wage experience in self-employment is lower than the return to wage experience in wage work.	Unemployed workers with the poorest opportunities in the wage sector switch to and remain in self-employment.
Fairlie (1999)	Examine racial patterns in transitions between self-employment and wage/salary work among prime-age men.	Self-employed.	22 years of data from the Panel Study of Income Dynamics (PSID).	Racial differences in asset levels and probabilities of having self-employed fathers explain a large part of the gap in black/white entry rate, but none of the gap in the exit rate.	Existing policies that promote minority business ownership need to be modified or redesigned to reflect the racial differences in transition rates into and out of self-employment.
Fairlie and Robb (2003)	Examine the causes of intergenerational links in business ownership and the related issue of how having a family business background affects small-business outcomes.	Small businesses based on filing IRS form 1040 Schedule C.	1992 Characteristics of Business Owners.	Prior work experience in a family member's business has a positive effect on business outcomes. Also, inherited businesses are more successful than non-inherited businesses.	Most disadvantaged business development policies currently in place, such as set-asides and loan assistance programs, are targeted toward alleviating financial constraints not toward providing opportunities for work experience in small business.
Gentry and Hubbard (2004)	Examine the importance of saving by entrepreneurial households and the possible interdependence between entrepreneurs' investment and saving decisions.	Households reporting owning one or more businesses with a total market value of >=\$5,000.	1983 and 1989 Surveys of Consumer Finances.	Entrepreneurial households own a substantial share of household wealth and income, and this share increases throughout the wealth/income distribution; their portfolios are very undiversified; their income ratios and saving rates are higher.	Studies of the saving decisions of wealthy households should pay more attention to the role of entrepreneurial decisions and their role in wealth accumulation.



Table 3 (continued). Studies Examining Different Levels of Entrepreneurial Activity over Time and Geographical Areas

Author(s)	Purpose	Entrepreneurial Focus	Data	Results	Policy Implications
Gompers, Lerner, Scharfstein (2003)	Examine factors that lead to creation of venture capital-backed startup firms, a process called "entrepreneurial spawning" (i.e., the propensity of publicly traded companies to spawn new venture capital backed firms).	Entrepreneurs are employees who leave public companies to start new venture capital-backed firms.	1986-1999, using VentureOne database.	Findings indicate the breeding grounds for entrepreneurial firms are other entrepreneurial firms.	Policies that seek to foster entrepreneurial and venture capital activity by providing capital or investment incentives may not be enough. Instead, regions may need to attract firms with existing pools of workers who have the "training and conditioning" to become entrepreneurs. Stimulating entrepreneurship in a region with few existing entrepreneurs is difficult.
Guiso and Schivardi (2004)	Test whether the talent to become an entrepreneur is learnable.	Entrepreneurs are assumed to get more output from any combination of inputs so that entrepreneurial ability is equivalent to a firm's total factor productivity.	Italian firm data from 1982-1990. Number of firms in a given industry in a given area is a proxy for learning externalities and knowledge spillovers.	Geographical agglomeration of firms is due to differences in learning opportunities, not differences in startup costs.	Policy actions should promote the learning process to increase entrepreneurial ability.
Guiso, Sapienza, and Zingales (2004)	Test whether local financial development matters for various outcomes.	Probability a person becomes self-employed. Also uses the average age of the self-employed.	1992-1998, Italian data on households, firms and financial institutions. Create a measure of financial underdevelopment that is the probability a household is shut off from the credit market.	Financial development increases the probability a person becomes self-employed and decreases the average age of entrepreneurs. It also increases the ratio of new firms to the population.	Local financial development is important for self-employed and small firms.
Hamilton (2000)	Examine the earnings differentials in self-employment and paid employment.	Self-employed.	1984 Survey of Income and Program Participation. Sample of 8,771 male school leavers ages 18-65 working in the non-farm sector.	Entrepreneurs have not only lower initial earnings than employees with the same characteristics but also lower earnings growth.	Little evidence is found that the earnings differential reflects the selection of low-ability paid employees into self-employment.
Holtz-Eakin, Joulfaian and Rosen (1994) (a)	Examine to what extent liquidity constraints increase the likelihood of entrepreneurial failure.	Individuals who file IRS form 1040 Schedule C in 1981 and 1985, and have a cash flow greater than \$5,000.	Federal tax data for 1981 and 1985.	Liquidity constraints exert a noticeable influence on the viability of entrepreneurial enterprises.	Sole proprietorships are undercapitalized.
Holtz-Eakin, Joulfaian and Rosen (1994) (b)	Examine how the receipt of an inheritance affects entrepreneurship.	Transition to filing IRS form 1040 Schedule C (from 1981 to 1985).	Federal tax data for 1981 and 1985.	The size of the inheritance has a substantial effect on both the probability of becoming an entrepreneur and the amount of capital invested in the new enterprise.	Liquidity constraints can have a substantial influence on entrepreneurship decision.



Table 3 (continued). Studies Examining Different Levels of Entrepreneurial Activity over Time and Geographical Areas

Author(s)	Purpose	Entrepreneurial Focus	Data	Results	Policy Implications
Hurst and Lusardi (2003)	Examine whether the inability of would-be entrepreneurs to acquire the capital necessary to start a business is an obstacle to new business formation.	Business owners (with results the same for self-employed).	Panel Study of Income Dynamics and National Survey of Small Business Finances.	Throughout most of the wealth distribution (up through \$200,000 in household wealth), there is no discernable relationship between household wealth and the probability of starting a business. Only for households at the top of the wealth distribution is a positive relationship found.	Liquidity constraints do not prevent entrepreneurs from starting a business.
Meyer (1990)	Examine explanations for differences in self-employment, net income, number of employees and form of organization between blacks and whites, with special focus on liquidity constraints and consumer discrimination.	Self-employed.	1984 Survey of Income and Program Participation; 1982 Characteristics of Business Owners.	The evidence does not support liquidity constraint/low assets explanation for the low black self-employment rate; cultural differences may explain black/white differences in self-employment.	Cultural differences may explain black/white differences in self-employment.
Mitchell and Pearce (2005)	Test of discrimination in lending to small businesses.	Businesses with fewer than 500 employees.	1998 Survey of Small Business Finances, uses models of the probability that small-business owners have outstanding loans and have applications for new relationship and transactional loans denied by banks and nonbanks.	The preponderance of evidence is consistent with prejudicial discrimination against African-American and Hispanic firm owners. Also, preferential practices characterize the granting of transaction loans to a significantly greater degree than the granting of relationship loans.	Discrimination is a problem in access to credit for some minority-owned firms, move by larger banks to transactional lending through credit scores and other "harder" information may lead to greater discrimination than with relationship lending.
Moore (2004)	Test whether wealth affects the decision to be an entrepreneur.	"New" entrepreneurs are households that started a business in the previous three years and have no prior businesses.	1995, 1998, and 2001 Survey of Consumer Finances. Home equity value is used as a proxy for wealth.	A positive relationship between wealth and starting a business is only significant for households in the top quartile of the home equity distribution.	For the majority of potential entrepreneurs, liquidity constraints are not binding.
Petersen and Rajan (2002)	Examine whether the distance of firms from their lender is a good predictor of credit quality, and whether distance has become a less useful predictor of credit quality.	Businesses with fewer than 500 employees.	1993 National Survey of Small Business Finance. Information on distance of firm from lender and method of communication (person, phone or mail) used.	Informationally opaque firms have closer lenders, and that banks are closer than other lenders. Also, bank transactions are more likely to be conducted in person than transactions with other lenders.	Greater information availability and reduced costs of processing it mean access of small firms to credit can be provided by financial institutions at greater distance.
Puri and Robinson (2004)	Examine whether entrepreneurs differ from non-entrepreneurs in terms of fundamental attitudes, such as optimism and risk-taking.	An entrepreneur is a respondent who must own some or all of at least one privately owned business, and the respondent must be full-time self-employed.	Survey of Consumer Finances, mainly 1995, 1998 and 2001, but some data going back to 1992.	Entrepreneurs are significantly more likely to think they will live longer, suggesting they are more optimistic about life prospects. Also, they are more risk-loving than the non-entrepreneur population.	Entrepreneurs are optimistic and risk-lovers, but the willingness to take risk is tempered by strong family ties, good health practices and long planning horizons.
Vos, Yeh, Carter and Taags (2005)	Test whether small businesses are constrained in their access to financing.	Businesses with fewer than 500 employees.	U.K. and U.S., 1998 Survey of Small Business Finances for U.S. and 2004 Federation of Small Businesses for U.K.	Small businesses that seek external funding usually get what they want.	Small businesses are not subject to finance constraints.



Table 4. Barriers to Entrepreneurship

Measure of Entrepreneurship	Not Amenable to Policy			Amenable to Policy				Regulation
	Exogenous Characteristics of Entrepreneurs	Talent or Ability		Agglomeration of Entrepreneurs	Financing or Liquidity Constraints		Discrimination	
		Optimistic	Low Risk Aversion		Talent or Ability Is Learnable	Talent or Ability		
Individual Self-employment	Yes: Puri and Robinson (2004)	Yes: Knight (1921), Yes: Puri and Robinson (2004), Yes: Kihlstrom and Laffont (1979)	Yes: Lucas (1978), Yes: Schumpeter (1911)	Yes: Dunn and Holtz-Eakin (2000), Yes: Guiso and Schivardi (2004)	Yes: Gompers, Lerner, Scharfstein (2003), Yes: Guiso and Schivardi (2004)	No: Hurst and Lusardi (2003), No: Moore (2004), Yes: Gentry and Hubbard (2004), Yes: Guiso, Sapienza, and Zingales (2004), Yes: Blanchflower and Oswald (1998), Yes: Fairlie (1999), Yes: Immergluck and Smith (2001) (2002), Yes: Immergluck and Smith (2001)	Yes: Bates (1991), Yes: Blanchflower, Levine and Zimmerman (1998), Yes: Mitchell and Pearce (2005)	Yes: Barth, Cordes and Yezer (1986), Yes: Berkowitz and White (2001), Yes: Persad (2004)
Individual Business Ownership	Yes: Puri and Robinson (2004)	Yes: Knight (1921), Yes: Puri and Robinson (2004), Yes: Kihlstrom and Laffont (1979)	Yes: Lucas (1978), Yes: Schumpeter (1911)	Yes: Dunn and Holtz-Eakin (2000), Yes: Guiso and Schivardi (2004)	Yes: Gompers, Lerner, Scharfstein (2003), Yes: Guiso and Schivardi (2004)	No: Hurst and Lusardi (2003), No: Moore (2004), Yes: Gentry and Hubbard (2004), Yes: Guiso, Sapienza, and Zingales (2004), Yes: Blanchflower and Oswald (1998), Yes: Fairlie (1999), Yes: Black and Strahan (2002), Yes: Immergluck and Smith (2001)	Yes: Bates (1991), Yes: Blanchflower, Levine and Zimmerman (1998), Yes: Mitchell and Pearce (2005)	Yes: Barth, Cordes and Yezer (1986), Yes: Berkowitz and White (2001), Yes: Persad (2004)
New Firm Startups	Yes: Puri and Robinson (2004)	Yes: Knight (1921), Yes: Puri and Robinson (2004), Yes: Kihlstrom and Laffont (1979)	Yes: Lucas (1978), Yes: Schumpeter (1911)	Yes: Dunn and Holtz-Eakin (2000), Yes: Guiso and Schivardi (2004)	Yes: Gompers, Lerner, Scharfstein (2003), Yes: Guiso and Schivardi (2004)	No: Hurst and Lusardi (2003), No: Moore (2004), Yes: Gentry and Hubbard (2004), Yes: Guiso, Sapienza, and Zingales (2004), Yes: Blanchflower and Oswald (1998), Yes: Fairlie (1999), Yes: Black and Strahan (2002), Yes: Immergluck and Smith (2001)	Yes: Bates (1991), Yes: Blanchflower, Levine and Zimmerman (1998), Yes: Mitchell and Pearce (2005)	Yes: Barth, Cordes and Yezer (1986), Yes: Berkowitz and White (2001), Yes: Persad (2004)
Firms by Number of Employees	Yes: Puri and Robinson (2004)	Yes: Knight (1921), Yes: Puri and Robinson (2004), Yes: Kihlstrom and Laffont (1979)	Yes: Lucas (1978), Yes: Schumpeter (1911)	Yes: Dunn and Holtz-Eakin (2000), Yes: Guiso and Schivardi (2004)	No Studies	No: Vos, Yeh, Carter and Tagg (2005), No: Petersen and Rajan (2002), Yes: Immergluck and Smith (2001)	Yes: Bates (1991), Yes: Blanchflower, Levine and Zimmerman (1998), Yes: Mitchell and Pearce (2005), Only between White and Black business owners: Bostic and Lampani (1999)	Yes: Barth, Cordes and Yezer (1986), Yes: Berkowitz and White (2001), Yes: Persad (2004)

**Table 5. Selected Problems Identified by Small-Business Owners**

Problem	Rank	Percent of Respondents Identifying as Critical
<i>Employees</i>		
Cost of Health Insurance	1	65.6
Workers' Compensation Costs	3	32.8
Locating Qualified Employees	11	14
FICA (Social Security) Taxes	13	14.3
Unemployment Compensation (UC)	19	14.4
Keeping Skilled Employees	28	12.4
Health/Safety Regulations	30	10.4
<i>Finance</i>		
Cash Flow	7	21.6
Poor Earnings (Profits)	12	18.6
Highly Variable Earnings (Profits)	23	10.6
Obtaining Long-Term (5 Years or More) Business Loans	68	6.7
Obtaining Short-Term (12 Months or Revolving) Business Loans	70	6.7
<i>Regulation</i>		
Unreasonable Government Regulation	9	19.5
Frequent Changes in Federal Tax Laws and Rules	15	12.7
State/Local Paperwork	17	11.6
Federal Paperwork	18	12.2
Health/Safety Regulations	30	10.4
<i>Taxes</i>		
Federal Taxes on Business Income	5	23.2
Property Taxes (Real, Personal, or Inventory)	6	22.7
State Taxes on Business Income	8	20.2
FICA (Social Security) Taxes	13	14.3
Estate (Death) Taxes	36	17.3

SOURCE: Small Business Problems & Priorities, National Federation of Independent Business.



Appendix I

Explanation of Terms Used in Entrepreneurship Studies

(See <http://www.census.gov/csd/susb/defterm.html>)

Annual Payroll: Total annual payroll includes all forms of compensation, such as salaries, wages, commissions, bonuses, vacation allowances, sick-leave pay and the value of payments in kind (e.g., free meals and lodgings) paid during the year to all employees.

Employment: Paid employment consists of full- and part-time employees, including salaried officers and executives of corporations, who were on the payroll in the pay period including March 12. Included are employees on sick leave, holidays and vacations; not included are proprietors and partners of unincorporated businesses.

Enterprise: An enterprise is a business organization consisting of one or more domestic establishments that were specified under common ownership or control. The enterprise and the establishment are the same for single-establishment firms. Each multi-establishment company forms one enterprise — the enterprise employment and annual payroll are totaled from the associated establishments.

Enterprise Size: Enterprise size designations are determined by the total employment of all associated establishments. The enterprise size group "0" includes enterprises for which no associated establishments reported paid employees in the mid-March pay period but paid employees at some time during the year.

Establishment: A single physical location where business is conducted or where services or industrial operations are performed.

Establishment Births: Births are establishments that have zero employment in the first quarter of the initial year and positive employment in the first quarter of the subsequent year.

Establishments Contractions: Contractions are establishments that have positive first-quarter employment in both the initial and subsequent years, and decreased employment during the time period between the first quarter of the initial year and the first quarter of the subsequent year.

Establishment Deaths: Deaths are establishments that have positive employment in the first quarter of the initial year and zero employment in the first quarter of the subsequent year.

Establishment Expansions: Expansions are establishments that have positive first-quarter employment in both the initial and subsequent years and increased employment during the time period between the first quarter of the initial year and the first quarter of the subsequent year.

Firm: A firm is a business organization consisting of one or more domestic establishments in the same state and industry that were specified under common ownership or control. The firm and the establishment are the same for single-establishment firms. For each multi-establishment firm, establishments in the same industry within a state will be counted as one firm — the firm employment and annual payroll are totaled from the associated establishments.

**Legal Form of Organization (LFO):**

- a. Corporations: Enterprises legally incorporated under state laws
- b. Partnerships: Unincorporated enterprises owned by two or more persons having financial interest in the business
- c. Sole Proprietorships: Unincorporated enterprises owned by one person
- d. Nonprofit Organizations: Enterprises with non-profit status (tax-exempt)
- e. Other (Associations, Trust, Joint Ventures, Estates etc.): Enterprises that are formed by other legal form of organization
- f. Unknown: Enterprises with unknown legal form of organization

Metropolitan Statistical Area (MSA): An MSA is an integrated economic and social unit with a large population nucleus. Each MSA consists of one or more counties or statistically equivalent area meeting published standards of population and metropolitan character; in the six New England states (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont), cities and towns (rather than counties) are used as the component geographic units.

Receipts: Receipts (net of taxes) are defined as the revenue for goods produced, distributed, or services provided, including revenue earned from premiums, commissions and fees, rents, interest, dividends and royalties. Receipts exclude all revenue collected for local, state and federal taxes. Receipts are acquired from the Economic Census data for establishments in industries that are in-scope to the Economic Census; receipts are acquired from IRS tax data for single-establishment businesses in industries that are out-of-scope to the Economic Census; payroll-to-receipts ratios are used to estimate receipts for multi-establishment businesses in industries that are out-of-scope to the Economic Census. Statistics of U.S. Businesses has receipts for 1997 only.



About the Authors

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