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IMMIGRANT CONTRIBUTIONS TO U.S. ENTREPRENEURSHIP AND INNOVATION

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Immigrant Contributions to U.S. Entrepreneurship and Innovation

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There is much empirical evidence indicating that skilled immigrants contribute strongly to economic growth in the United States. This paper will examine a number of academic studies assessing immigrants' contributions to patents and publications, business formation and ownership, and job creation. It will then discuss the results of original research examining the contributions of immigrants to companies included on the 2012 "Fortune 500" list.

Patents and Publications

Patent data are a relevant indicator of entrepreneurship because they reflect the flow of new products or ideas. While a patent gives exclusive rights over an innovation to the individual or group to which it is granted, it eventually expires and the new technology or innovation becomes available to the rest of the economy. Patents thereby encourage individual firms to invest resources in developing new innovations while also making the economy as a whole more efficient. In her paper, "Which Immigrants Are Most Innovative and Entrepreneurial?" Rutgers economics professor Jennifer Hunt finds that immigrants receive and commercialize patents at a higher rate than nonimmigrants.¹ Hunt's data is from the 2003 National Survey of College Graduates and includes a sample size of 177,320 respondents, all of whom have at least a bachelor's degree. Hunt finds that 2.0% of immigrant respondents had a patent granted and 1.3% of immigrant respondents had a patent commercialized. Only 0.9% of non-immigrants had a patent granted and 0.6% of non-immigrants had commercialized a patent.

Like patents, publications are a viable indicator of innovation because they convey new knowledge of both academic and commercial value. Using the same sample from the 2003 National Survey of College Graduates, Hunt estimates that 17.6% of immigrant respondents had published a book, academic journal article, or a paper for a scholarly conference. Meanwhile, only 14.4% of non-immigrants had published. Immigrants also hold an advantage in the number of publications. Among those with any publications, the average number of publications for immigrants is 10.5 while the average number for non-immigrants is 7.4.

Business Formation and Ownership

Business formation and ownership are the very things that people most associate with entrepreneurship. Although data suggest that relatively few people actually start and own businesses, it is notable that immigrants are more likely to start and own a business than non-immigrants. Robert W. Fairlie, a professor of economics at UC-Santa Cruz, finds from the 1996-2007 Current Population Survey that the per-month business-formation rate is higher for immigrants (0.62%) than it is for non-immigrant respondents (0.28%). This statistic indicates

¹ Jennifer Hunt and Marjolaine Gauthier-Loiselle, "How much does immigration boost innovation?" Working Paper No. 14312, National Bureau of Economic Research, (2008).

that immigrants start businesses at a faster rate, but it is important to note that not all businesses survive, indeed many businesses fail. Business ownership, which measures the percent of individuals who own a business, is another indicator for entrepreneurship. Using data from the 1996-2007 Matched Current Population Survey,² Fairlie finds the business ownership rate to be 10.5% for immigrant respondents while only 9.3% for non-immigrant respondents.

When people start new businesses, they often create jobs for others. Fairlie finds from the 2007 Survey of Business Owners — which surveyed 2.5 million firms — that immigrants hire an employee at a slightly higher rate than non-immigrants.³ In 2007, 27.9% of immigrant firms hired an employee, while 26.3% of non-immigrant firms hired an employee. Jennifer Hunt uses “companies with 10 or more employees” as a gauge for the strength of firms. Immigrant respondents from the National Survey of College Graduates hold an advantage over non-immigrants: 0.8% of immigrant survey respondents own firms with 10 or more employees, while the rate is only 0.6% of non-immigrant survey respondents. However, on average, non-immigrant firms hire 11.9 employees, while the average number of employees for immigrant firms is 8.0.³

Fortune 500 Firms

Another way area of research is immigrant representation among the founders of “Fortune 500” companies, a ranking of American companies with the highest revenue. The most recent analysis is “The ‘New American’ Fortune 500” published by The Partnership for a New American Economy.⁴

The report uses the 2010 Fortune 500 list and finds the following:

- 18% of Fortune 500 companies were founded by immigrants and 23% were founded by the children of immigrants. Combining these percentages, 41% of Fortune 500 firms were founded by either an immigrant or a child of an immigrant.⁵
- Newer Fortune 500 companies (founded between 1985 and 2010) are 20% more likely to have an immigrant founder;
- Fortune 500 companies founded by immigrants or children of immigrants employ 10 million people worldwide.

Two years have passed since the Partnership for a New American Economy’s study was published. To update these findings, I conducted an original analysis of the 2012 Fortune 500 to

² Matched CPS data surveyed a sample of eight million adult U.S. residents between 1996 and 2007. The sample is random. Respondents were questioned regardless of age, education, or employment status.

³Robert Fairlie, “Immigrant Entrepreneurs and Small Business Owners, and their Access to Financial Capital.” SBA Office of Advocacy (2012).

⁴Partnership for a New American Economy, “The “New American” Fortune 500” (2011).

⁵Companies founded by someone who was both an immigrant and the child of an immigrant were categorized as being founded by an immigrant.

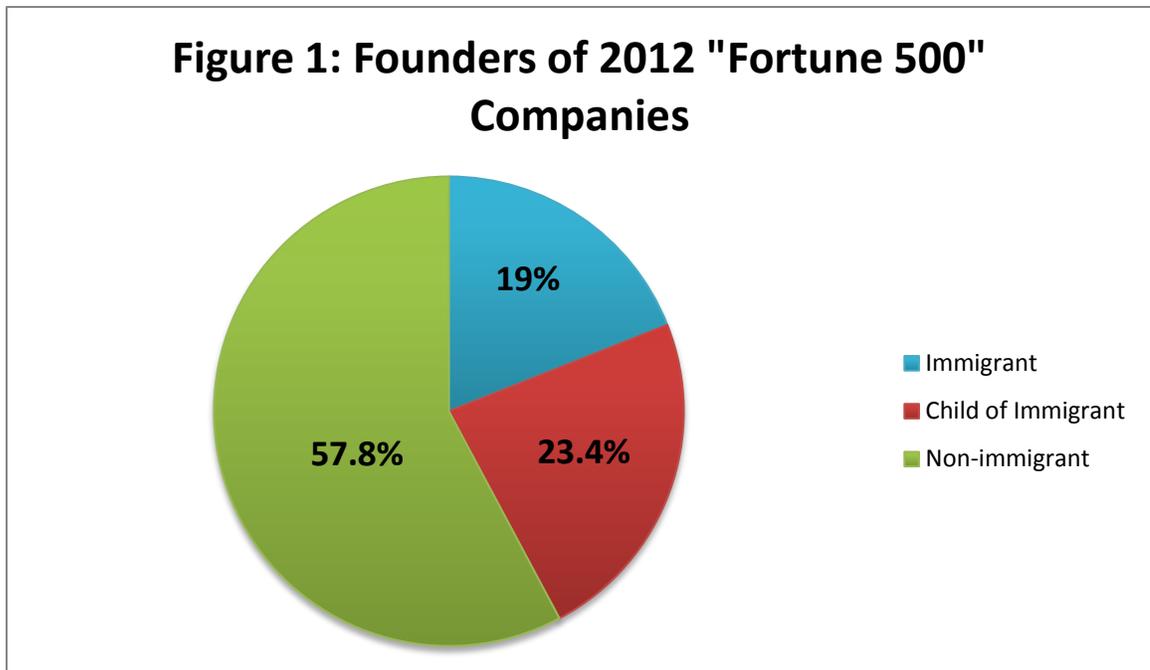
determine changes in the percentage of immigrant founders. Information on the founders of each company came from official company websites and other online searches: the name of each founder, the nationality of each founder, whether the founder was an immigrant, and whether the founder was the child of an immigrant. The total number of immigrant founders was divided by 500 to reveal the percentage of immigrant founders, as was the number of founders who were children of immigrants. In an effort to avoid biasing the numerator, founders who were both an immigrant and the child of an immigrant were categorized only as an immigrant founder.

There are 10 companies on the list, mostly utility companies, formed through a long series of mergers. For such companies, it would be inappropriate to credit their founding to any single individual or small group. Thus, for this analysis, such companies were considered to be founded by non-immigrants. Also, essential data for 30 of the companies on the list could not be determined: Some founders could not be identified, or the founder's country of origin could not be positively determined. Because many of these companies appeared on the 2010 Fortune 500 list and were labeled as "non-immigrant" in the Partnership for a New American Economy's study, these 30 companies were considered founded by non-immigrants.

The key findings from the analysis of the 2012 Fortune 500 include:

- 95 of Fortune 500 firms (19%) were founded by immigrants. This represents a slight increase from 18% in 2010.
- Furthermore, 23.4% of companies were founded by children of immigrants, a slight increase from 23.0% in 2010.
- In total, 211 out of 500 companies (42.2%) were founded by immigrants or the children of immigrants. This represents a slight increase from the 40.8% recorded by the Partnership for a New American Economy's study in 2010.
- These 211 companies founded by immigrants or the children of immigrants reported revenue of \$5 trillion in 2011, an increase from \$4.2 trillion in 2009.
- Profits for Fortune 500 firms founded by immigrants or children of immigrants amounted to \$430 billion in 2012.

Figure 1: Founders of 2012 "Fortune 500" Companies



Because the founding data for 30 of the Fortune 500 companies could not be determined, and because the 10 mergers were considered founded by non-immigrants the above results are conservative. If these 40 companies are excluded from the data set, bringing the denominator to 460 companies, the results become even more favorable toward immigrants:

- The percentage of firms founded by immigrants increases to 20.7% from 19%;
- The percentage of firms founded by children of immigrants increases to 25.2% from 23.4%;
- The percentage of firms founded by immigrants plus children of immigrants increases to 45.9% from 42.2%.

Conclusion

Research indicates that immigrants contribute to the American economy in significant ways. Immigrants form businesses at a greater and faster rate than non-immigrants. They also hire an employee, license and commercialize patents, and publish papers at higher rates than their non-immigrant counterparts. Despite representing about only 12% of the population, immigrants founded 19% of 2012 Fortune 500 firms. Another 23.4% of Fortune 500 firms were founded by the children of immigrants. These statistics are solid evidence that immigrants are entrepreneurial and innovative, and help drive the U.S. economy.