United States
Small Business
Administration

Office of Advocacy

SMALL BUSINESS
RESEARCH
SUMMARY

No. 206

June 2001

Economic Policy and the Start-up, Survival, and Growth of Entrepreneurial Ventures

by Douglas Holtz-Eakin, Syracuse University and Harvey S. Rosen, Princeton University
under contract SBAHQ-01-M-OI53 (2001, 60 pages)

Purpose

This research focuses on two important questions regarding entrepreneurial ventures:

• Do the owners of such enterprises face constraints in capital markets?

• How do entrepreneurs react to changes in their personal income tax situations?

Overall Findings

Using tax return data, this research found that with lower taxes or when owners receive lump sums such as inheritances, they invest in their businesses. This investment leads to increased growth and probability of survival. A lack of access to sufficient liquidity is slowing the growth of entrepreneurial ventures.

From a public policy standpoint, targeted government programs to relieve liquidity constraints could help, but a cost-benefit analysis of each program would need to be conducted. The research does indicate that cutting marginal tax rates for all taxpayers may be superior to targeted small business tax relief because the latter does not encourage nascent entrepreneurs.

Comments from Advocacy

The Office of Advocacy is proud to present research from two highly regarded economists, Dr. Douglas Holtz-Eakin and Dr. Harvey Rosen, focusing on tax policy and entrepreneurial issues.

"For Advocacy to be at the fore front on issues vital to small business we need sound and timely research. So I am very pleased that our *Economic Policy and the Start-Up, Survival and Growth of Entrepreneu-ial Ventures* report provides valuable insights into the impacts of tax policy on entrepreneurship," said Susan Walthall, Acting Chief Counsel for the Office of Advocacy.

Highlights

Inheritances:

• The probability of becoming an entrepreneur varied positively with inheritance; moreover, the greater the magnitude of the individual's initial liquid assets, the smaller the incremental effect of inheritance. The results imply that a $100,000 inheritance increased the probability of a transition between 1981 and 1985 from 19.3 percent to 22.6 percent. Thus, an inheritance made it more likely that the heir would start a sole proprietorship.

• The size of the inheritance had a positive and statistically significant effect on the amount of capital invested in the new enterprise, a result that is consistent with the presence of liquidity constraints.

• On average, every $100 increase in inheritance increased purchases of depreciable assets by $7. Among taxpayers who start sole proprietorships with some depreciable capital, a 10 percent increase in inheritance increased spending on depreciable assets by about 5.2 percent.

• The "survival rate" for remaining an entrepreneur increased with inheritance, from 67.4 percent in the low inheritance (under $25,000) class to 76.5 percent in the high inheritance (over $150,000) class.

This *Small Business Research Summary* (ISSN 1076-8904) summarizes one of a series of research papers prepared under contracts issued by the U.S. Small Business Administration's Office of Advocacy. The opinions and recommendations of the authors of this study do not necessarily reflect official policies of the SBA or other agencies of the U.S. government. For more information, write to the Office of Advocacy at 409 Third Street S.W., Washington, DC 20416, or visit the office's Internet site at *www.sba.gov/advo*.

• An inheritance exerts a statistically significant, positive effect on the probability that an entrepreneur will stay in business rather than to become a wage earner. A simulation showed that a $150,000 inheritance increased the probability of remaining an entrepreneur by 1.3 percentage points and decreased the likelihood of becoming a wage earner by 1.4 percentage points. Similarly, the level of liquid assets has a positive and statistically significant impact. Also, the more successful the enterprise was prior to receiving an inheritance, the more likely the entrepreneur is to continue in business rather than to become a wage earner. But receipt of an inheritance makes it less likely that an entrepreneur will move to a partnership/S corporation and more likely that he or she will retire.

• An inheritance of $150,000 in 1985 would have increased a sole proprietorship's average receipts by about 20 percent, thereby increasing the success of ongoing firms.

Tax rate changes:

• A model using the 1985-1988 linked data implies that a decrease in a sole proprietor's tax rate from 50 to 33 percent (as happened to the top individual income tax rate in those years) would lead to an increase in business receipts of 28 percent. Thus, marginal tax rates have a substantial effect on the growth of entrepreneurial enterprises. However, the probability of a firm's surviving at all does not seem to be affected by tax rates.

• The Tax Reform Act of 1986 lowered rates the most for high-bracket taxpayers. Sorting entrepreneurs into high- and low-tax in 1985 shows that those who received the largest rate cuts were most likely to begin or continue making capital outlays and to begin or continue paying wages. A simulation showed that an increase in the user cost of capital (such as through a rate increase or reduction in depreciation allowances) would lower the probability of investing by 25 percent. Raising each 1988 marginal tax rate by 5 percentage points would lower the probability of investing by 10.4 percent. Both simulations imply a substantial response of investment decisions to tax rates.

• Changes in user costs and, thus, in tax rates have a substantial and statistically significant impact on entrepreneurs' investment expenditures. A 10 percent increase in the user cost of capital would lower average investment outlays by 17.8 percent, implying that small businesses of the type in the sample are more likely to be liquidity constrained than corporations, for which other researchers have found lower response rates. A 5-percentage-point increase in all marginal tax rates would lead to a 9.9 percent decline in average investment expenditures.

• The greater the decline in a sole proprietor's tax rate, the more likely that he or she would hire some labor. Reducing the marginal rate from 39.6 percent (the top marginal income tax rate in 2000) to 33.2 percent would increase the probability of employing labor by 12.1 percent, a substantial effect. The average magnitude of a change in an existing wage bill would be 4 to 5 percent.

Scope and Methodology

The research is based on confidential tax return data that was only analyzed by Treasury Department employees. (Neither of the co-authors of this report nor any SBA employees had access to the data.) The data were used in econometric models the authors constructed to test the above questions.

Inheritances invested in businesses were used as a proxy for a capital shortage. Federal individual tax returns from 1981 and 1985 of individuals receiving inheritances from 1982 and 1983 captured this information. The presence of a Schedule C was used to indicate entrepreneurial activity, and to determine whether receipt of an inheritance affected the likelihood of starting or continuing such a business. In addition, it was noted whether the filer had earned income and whether the Schedule C included depreciation expense, indicating investment in fixed assets. Marginal tax rates changed during the period studied allowing the researchers to determine the changes entrepreneurial activity while holding other variables constant.

Ordering Information

The complete report is available online at http://www.sba.gov/advo/research or from:

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