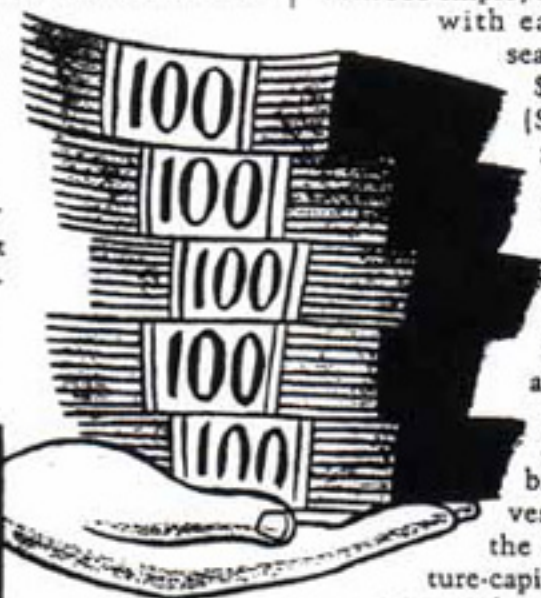


Venture Capital: *The Visible Hand at Work*

Those who believe that the federal government shouldn't interfere with the "invisible hand" of the marketplace might be surprised by the early results of a new study under way at the Harvard Business School. The study has found that when high-technology start-up companies are backed by substantial federal research-and-development grants, they outperform, in sales and employment growth, similar companies that receive less support from the government.



demic research per year – such as the National Science Foundation and the Department of Commerce – set aside a fixed percentage of the funds for small-business research and development. The agencies must invest in independently owned for-profit companies with fewer than 500 employees, providing them with early (Stage 1) research grants of up to \$100,000 and late (Stage 2) development grants of up to \$750,000. In 1997, the SBIR program is planning to invest about \$1 billion, which is a significant amount when compared with the approximately \$4 billion per year invested on average by the entire private-venture-capital industry.

To test the effectiveness of the government program, Lerner studied employment and sales growth rates between 1985 and 1995 of 541 companies that had received Stage 2 grants from the SBIR. He compared the rates with those of companies that were similar in size and industry classification to the SBIR-backed companies but had not received Stage 2 grants. (Some had received Stage 1 grants, and a small percentage had received private-venture-capital funding, but most had not received any external backing.) The data showed that the number of employees at companies that had re-

ceived Stage 2 grants grew, on average, 56% between 1985 and 1995, versus only 13% at the comparable companies. During the same period, sales at the former companies grew 123%, versus 48% at the latter.

The study yielded an additional – and somewhat surprising – finding that could have implications for how the government invests in the future: SBIR-backed companies grew even faster when they were located in zip-code areas where private-venture-capital firms had recently invested in other companies.

"Venture capital firms tend to cluster their investments in certain industries and in certain geographical areas, such as Silicon Valley in California and Route 128 outside Boston," Lerner says. "This creates a network of support that includes lawyers, accountants, specialized labor, and suppliers. In light of this phenomenon, it stands to reason that SBIR-backed companies do much better when they are located in areas with a preexisting venture-capital base."

Lerner suggests that the SBIR program may be successful in those areas because it is coming to the aid of businesses overlooked by private sector investors, who tend to invest in only a small number of companies and in certain "hot" industries such as information technology and health care. By seeking out small businesses neglected by the typical venture capitalist, Lerner hypothesizes, the federal government may be serving the needs of a capital-starved – but promising – group of young companies.

For the time being, then, members of the much maligned federal bureaucracy can take pride in the fact that, although Adam Smith's "invisible hand" may drive the economy, the government is lending a more visible helping hand to legions of deserving small businesses.

"There is a presumption in some circles that the federal funds being invested in small businesses may be wasted resources," says Josh Lerner, an associate professor and the study's author. "But this study suggests that the government is having a much greater and more positive impact than it is generally given credit for."

Established in 1982 by an act of Congress, the Small Business Innovation Research (SBIR) program mandates that federal agencies fund more than \$100 million in aca-

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