

## Study: U.S. entrepreneurs are educated, experienced

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SAN FRANCISCO — If anyone clings to the image of tech whiz kids who drop out of college to make fortunes, it's time to let it go.

Research released Thursday (May 1) shows that most U.S.-born founders of technology startups are well educated, experienced, and middle-aged before they make the leap from employee to entrepreneur.

The average and median age of company founders was 39, according to "[Education and Tech Entrepreneurship](#)," a report published by the Kansas City-based Kauffman Foundation. It defines entrepreneurs as anyone who started a tech or engineering company from 1995 to 2005.

Researchers surveyed 652 founders at 502 companies.



**Vivek Wadhwa**

The report's conclusions show how the Internet economy's startup glory days are long gone, and how much experience and education count. "This is what you'd expect, but the dot-com days destroyed our perceptions of reality," said [Vivek Wadhwa](#), the study's lead author and a fellow at Harvard Law School.

John Groe, founder and chief technology officer of 55-employee Sequoia Communications (San Diego), fits the mold outlined in the study's conclusions. Groe, 46, earned a bachelor's degree from California State University at Long Beach in 1984 and a master's degree in engineering from University of Southern California in 1990.

Groe worked at four communications companies--three wireless and one satellite--and published a book on mobile radio design. In 2000, he started Sequoia, which develops RF IC technology. It takes time to get the practical experience necessary for success in engineering, Groe said. "A technical entrepreneur needs to be an expert," he said. "The key is at some point you realize there's a better way. Then it's just a matter of getting the confidence to make the jump."

John Kutsch followed a similar path from employee to boss. Kutsch, 40, is president of Whole World (Harvard, Ill.), a nine-employee contract product development company that specializes in engineering design.

Kutsch earned an industrial engineering degree from Southern Illinois University in 1990 and spent a year at a design firm. Then he started his M.B.A. in product design management at Loyola University, switching jobs three months later, and finishing his graduate degree in 1995. In 2001, he started Whole World.

Older tech types often provide "ghost economy" expertise, Kutsch said. "We take 20 years of knowledge and contacts and provide it to companies that otherwise couldn't afford it, or justify it, or acquire it in-house."

It's not always by choice that some engineers become entrepreneurs, Kutsch said "Guys like myself in my age bracket are often 'in-country refugees' from big tech companies," he said.

Most U.S.-born tech entrepreneurs are well educated, the Kauffman research showed. The vast majority--92 percent--of founders surveyed had bachelor's degrees, 31 percent held master's and 10 percent Ph.D.s. Nearly half the degrees were in science, technology, engineering and mathematics. One-third were in business, accounting and finance.

The study also found differences in degrees obtained and time taken to start a company after graduation. MBAs moved fastest, taking an average of 13 years. Ph.D.s typically waited 21 years.

Education level directly correlates to company performance. In 2005, the startups surveyed had an average of 42 workers and sales revenues of about \$5.7 million. When founders earned degrees from elite schools, the figures climbed to 55 workers and \$6.7 million average sales. At the other end of the spectrum, startups with high school graduates at the helm had an average of 18 employees and revenues of \$2.2 million.

Founders with degrees from top-tier academic institutions were overrepresented, accounting for 8 percent of the total study sample. Harvard, Stanford, and University of Pennsylvania ranked first, second, and third, respectively, among universities where entrepreneurs got their highest degrees.

The findings weren't surprising to engineering educators. Vladimir Genis, director of the Applied Engineering Technology Program at Drexel University's Goodwin College of Professional Studies (Philadelphia), said, "We see the peak [of U.S.-born tech company founders] around 39 or 40 years. This is the real world."

Genis noted that the Kauffman study didn't include healthcare in its description of what constitutes engineering and technology firms. Healthcare is "an extremely important industry where we have a lot of startups," he said.