

GETTING THE BUG: IS (GROWTH)
ENTREPRENEURSHIP CONTAGIOUS?

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SUMMARY

Why do some people become entrepreneurs while others don't? Many explanations have been proposed, including economic, psychological, experiential, educational, situational, demographic, or other factors.¹ All of these are at least somewhat plausible given that entrepreneurship's complexity dictates that no single rationale for its undertaking can be complete. This short paper adds to these previous explanations a simple overarching idea: that the entrepreneurial instinct often is, like many human behaviors, imitative.

BACKGROUND

Entrepreneurship is among the most important forces in a modern economy. As Ewing Marion Kauffman Foundation studies have repeatedly shown, young companies are the primary net creators of jobs.² But entrepreneurship is a more potent force, driving innovation, productivity, and overall economic growth.³

While all entrepreneurial ventures are important, some ventures are disproportionately so. Growth companies (sometimes called "gazelles"), those companies growing more than 20 percent a year and with more than \$1 million in sales, generate more employment and contribute more to wealth and GDP than do slower-growing ventures. While economies are aided by more entrepreneurs in general, they are disproportionately aided by more growth ventures. Those companies are produced with less frequency than is economically desirable.

Imitation is a potent force in economics, with many behaviors that could be considered contagious.⁴ If we see someone doing something interesting or something that might bring a form of value, we are likely to try it ourselves. We may do it poorly, or we may do it well, but there is likelihood that we will make an attempt, and that others having seen us will make an attempt, and so on. To this way of thinking, one partial explanation for entrepreneurship's varying incidence is that it is a behavior learned in part through imitation, but only infrequently encountered, especially in its growth entrepreneurship variant.

¹ Markus Poschke, "Who becomes an entrepreneur? Labor market prospects and occupational choice," *Journal of Economic Dynamics and Control* (2012).

² Dane Stangler and Robert Litan, "Where Will the Jobs Come From?" (Kansas City, MO: Ewing Marion Kauffman Foundation, 2010).

³ Jonah Berger, *Contagious: Why Things Catch On* (New York: Simon & Schuster, 2013).

⁴ Organisation for Co-operation and Development, *Measuring Entrepreneurship: A Collection of Indicators* (2009).

This human propensity for imitative behavior has been seen and studied repeatedly, from childhood development,⁵ to learning languages,⁶ to product and service purchases,⁷ to the decision in a crowd to check e-mail on one's phone.⁸ In all of these cases, humans are heavily influenced by what they observe (literally or virtually) others doing.

Is entrepreneurship imitative? In other words, do people become entrepreneurs, at least in part, because they observe others doing the same thing? There is little reason to think that it wouldn't be, and much reason to think that it would. For example, while entrepreneurs only have limited access to their own mental states in describing their entrepreneurial motivations, they often describe role models, peers, and others who played a role in their decision to become entrepreneurs, most of whom turn out to be entrepreneurs themselves.

Can this be observed contemporaneously? Something similar can be seen in the many experiential entrepreneurship programs. While participants in such programs as Startup Weekend often have no direct experience creating a product or service, let alone a company, the short time spent among others who have created companies emboldens them to try, providing examples of behaviors to imitate.

While it is possible to observe how prospective entrepreneurs find real entrepreneurs to watch in some contexts, like Startup Weekend, it is much less obvious in day-to-day life,⁹ and this leads to a question: If entrepreneurship is imitative to any meaningful degree, what do we know about the likelihood of the average American to be exposed to entrepreneurs who they might imitate? And, at least as importantly, what kinds of entrepreneurs do they encounter? We don't yet know, beyond broad population-based guesses.

⁵ Carol O. Eckerman and Mark R. Stein, "How imitation begets imitation and toddlers' generation of games," *Developmental Psychology* 26, no. 3 (1990): 370.

⁶ Richard W. Byrne and Anne E. Russon, "Learning by imitation: a hierarchical approach," *Behavioral and Brain Sciences* 21, no. 5 (1998): 667–84.

⁷ Harvey Leibenstein, "Bandwagon, Snob, and Veblen effects in the theory of consumers' demand," *The Quarterly Journal of Economics* 64, no. 2 (1950): 183–207.

⁸ Julia Finkel and Daniel J. Kruger, "Is Cell Phone Use Socially Contagious?" *Human Ethology Bulletin* 27 no. 1-2 (2012): 15–17.

⁹ Robert Sullivan, "Entrepreneurial learning and mentoring," *International Journal of Entrepreneurial Behaviour & Research* 6, no. 3 (2000): 160–75.

DATA

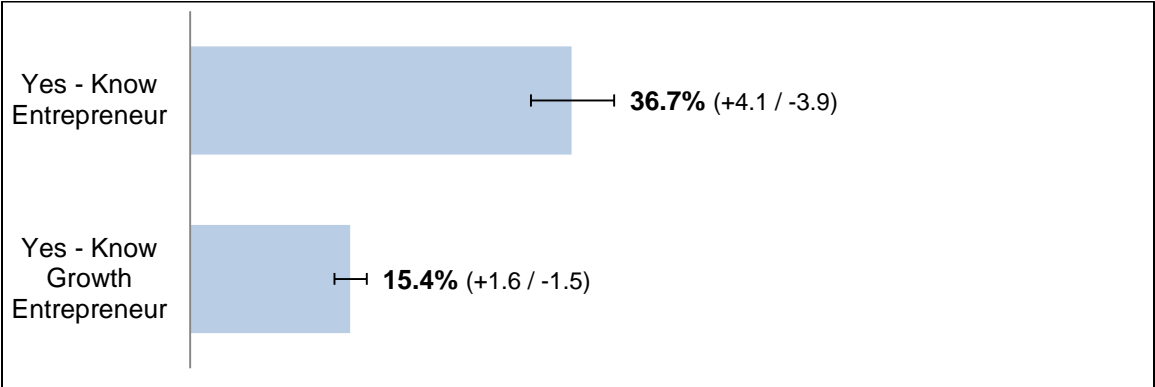
To begin investigating this issue, the author created two, two-question surveys using a national sample of 2,000 U.S. residents. Response numbers varied from 400 to 2,000 depending on the question. One survey asked respondents whether they know any entrepreneurs, while the other survey asked whether they know growth entrepreneurs¹⁰ specifically. Both surveys asked respondents whether they were entrepreneurs themselves.

The survey was conducted via Consumer Google Survey and categorizes the responses by age, income, gender, and location. The following section presents results from the surveys.

ANALYSIS

First, we examine the likelihood of respondents knowing an entrepreneur overall, and then by age, gender, income, and location. The likelihood of a respondent reporting knowing an entrepreneur in the United States was 36.7 percent. The likelihood of knowing a growth entrepreneur was considerably lower, at 15.4 percent.

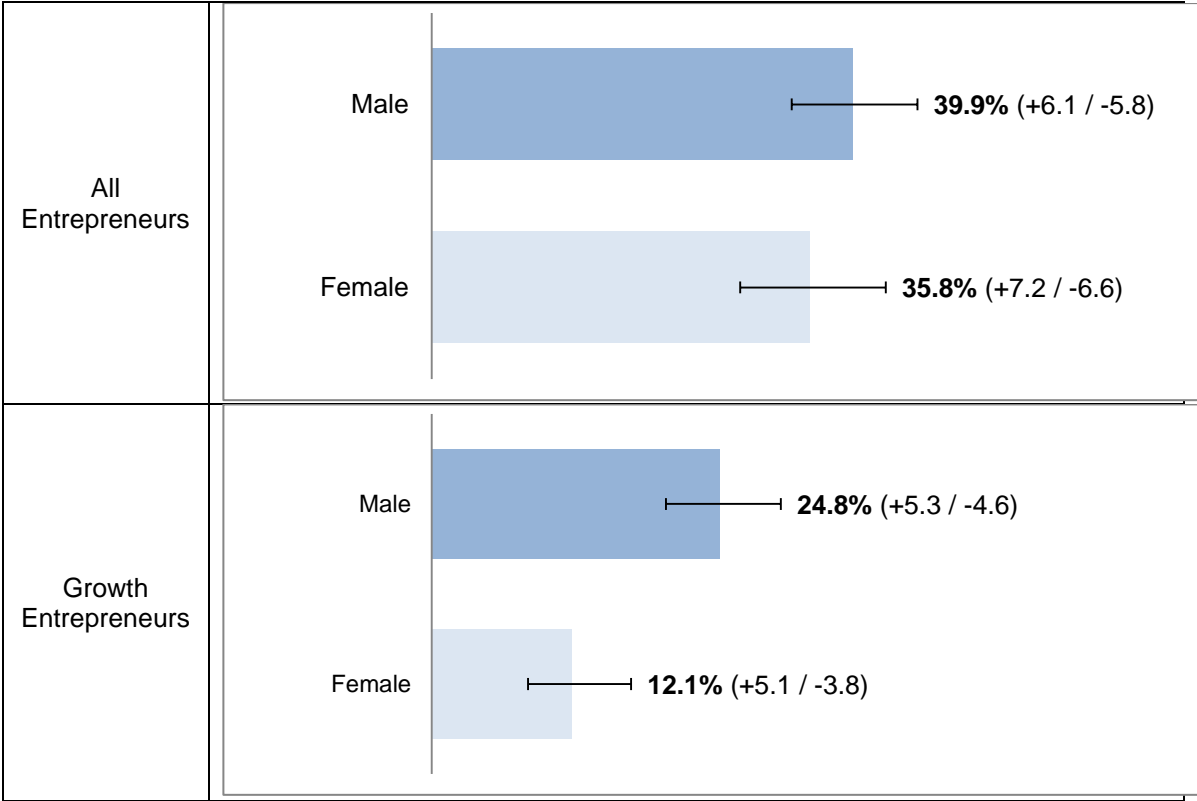
Fig. 1. Likelihood of Knowing an Entrepreneur



¹⁰ A growth entrepreneur was defined as the founder of a “software, Internet, biotechnology or similar high-growth business.”

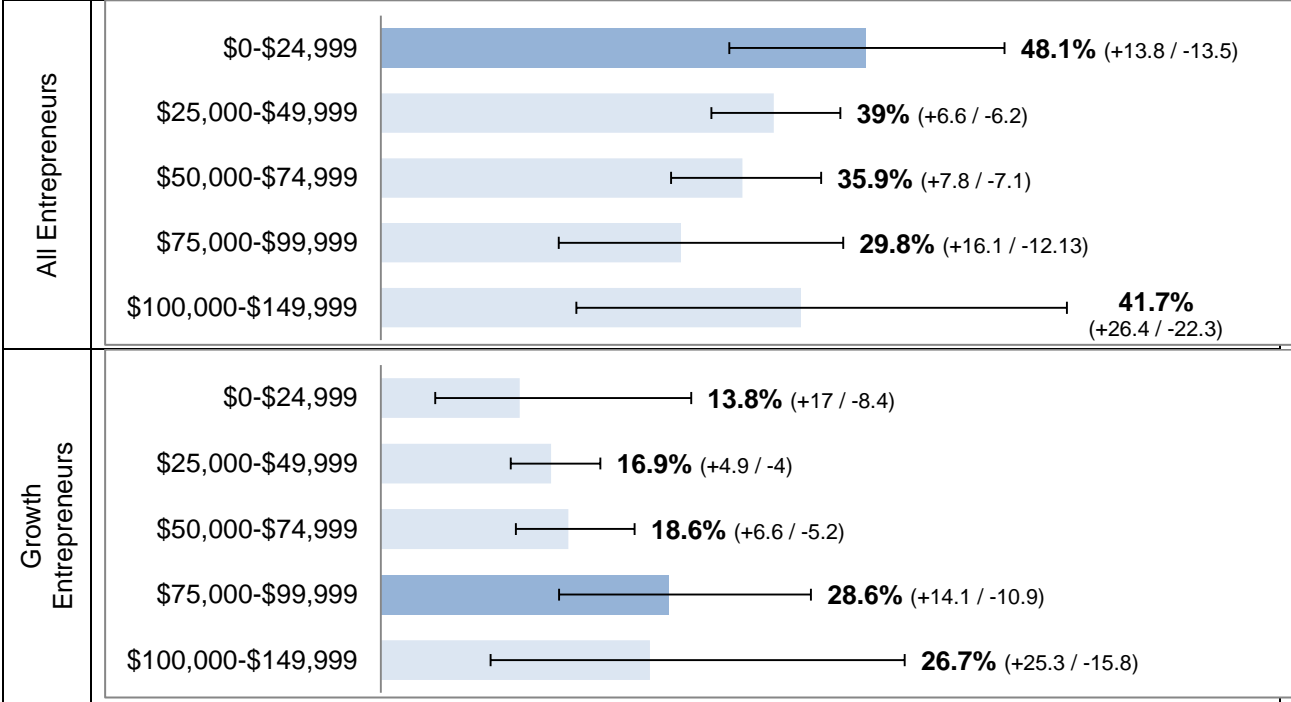
These likelihoods changed when separating male and female respondents. Men were more likely than women to know entrepreneurs, but the difference was within the survey's possible margin of error. The difference was greater when it came to growth entrepreneurs, with a 13 percent nationwide gap, much larger than can be accounted for by statistical error. Women simply don't know as many growth entrepreneurs as men do, a situation made worse by the male-dominated nature of these fields and an important issue in creating female entrepreneurial role models.

Fig. 2. Likelihood of Knowing an Entrepreneur, by Gender



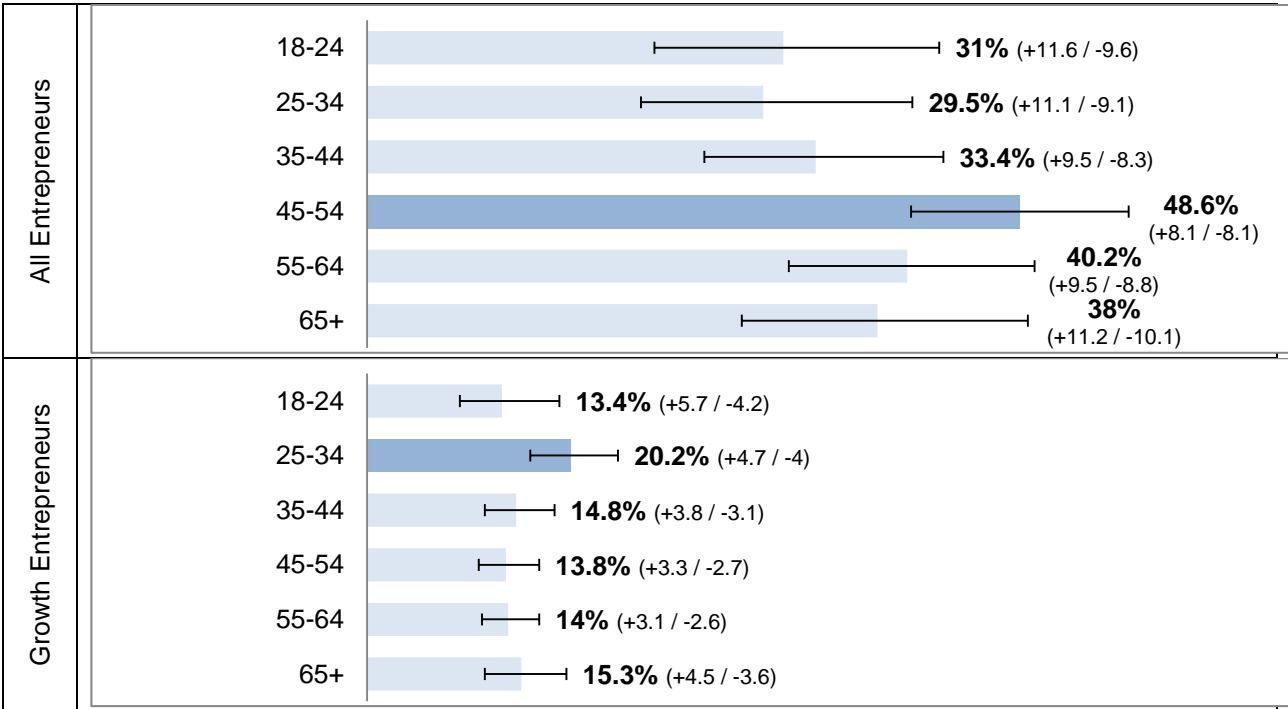
There are equally large gaps when the data is analyzed by income. The likelihood of knowing someone who is or has been an entrepreneur is highest at lower income levels, and lowest at higher income levels. This pattern varies only slightly across the United States and by gender. The finding is consistent with studies showing that subsistence entrepreneurship is fairly common among lower income Americans, but growth entrepreneurship is troublingly rare.

Fig. 3. Likelihood of Knowing an Entrepreneur, by Income Level



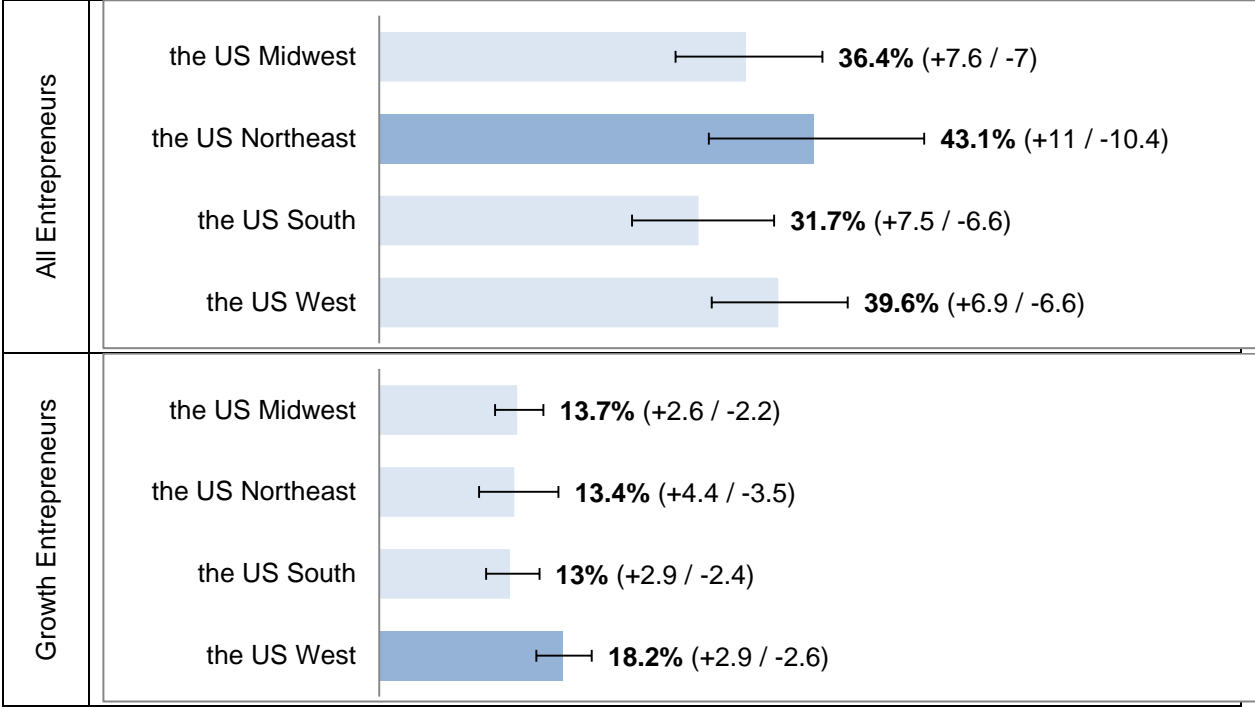
The likelihood of knowing entrepreneurs varies by respondents' age as well. People in the 45–54 age range were most likely to report knowing entrepreneurs, followed by respondents in the 65+ and the 55–64 age brackets. Knowing growth entrepreneurs, while less likely overall, skewed younger, with the 25–34 age cohort most likely to know growth entrepreneurs, and no other age group showing strongly. Some (but not all) of this can be attributed to the way we have defined growth, with technology attracting younger entrepreneurs.

Fig. 4. Likelihood of Knowing an Entrepreneur, by Age



The likelihood of knowing an entrepreneur varies considerably by geographic location. In the Northeast, 43.1 percent of respondents reported knowing entrepreneurs (of any type), followed by 39.6 percent in the West, which is within the bounds of survey error. However, respondents in the West were most likely to report knowing growth entrepreneurs specifically (not entirely surprisingly), while all other U.S. regions reported statistically significantly lower likelihoods.

Fig. 5. Likelihood of Knowing an Entrepreneur, by Region



It was not statistically meaningful to examine the results at the state level given the overall number of respondents. We may collect more detailed state data in a future version of this survey.

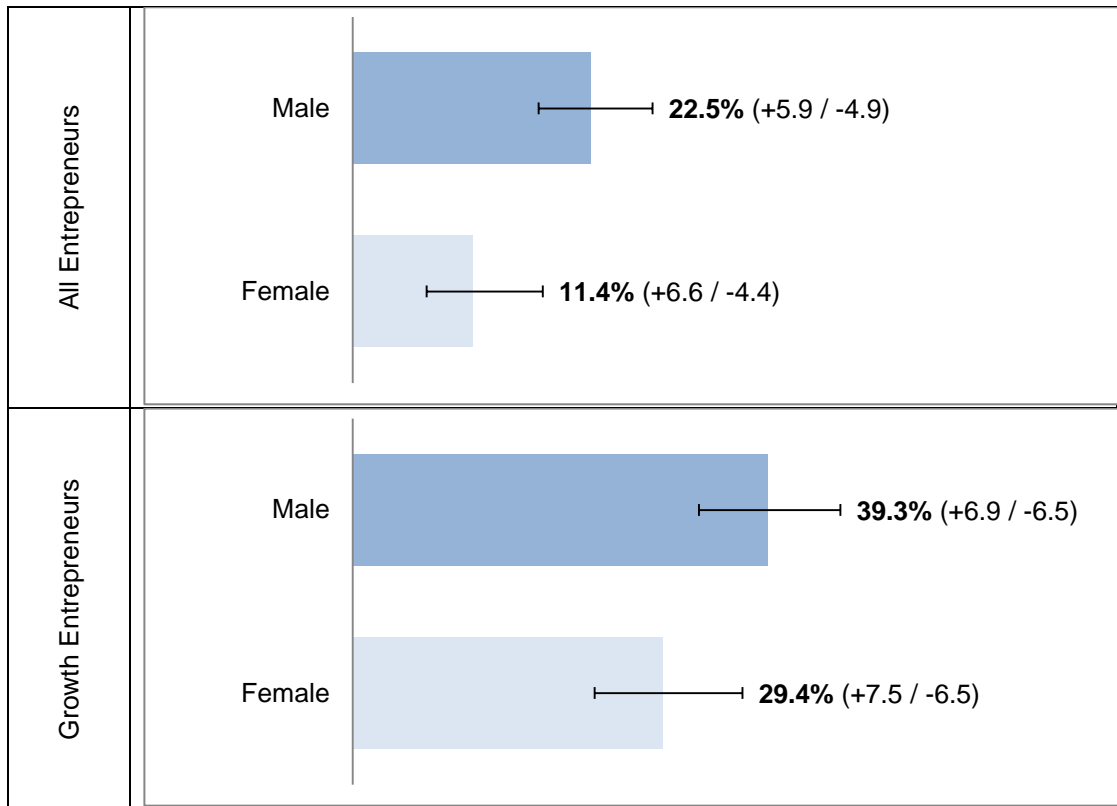
We investigated how likely respondents were to be entrepreneurs if they knew at least one entrepreneur. The following table summarizes the survey results, which show that knowing an entrepreneur is closely associated with being an entrepreneur. While we can't determine specific causality, the association between knowing an entrepreneur and being one was significant and large.

Fig. 6. Are you an Entrepreneur?

If you know this kind of entrepreneur Are you an entrepreneur?	
	Yes	No
Any	Yes	35.5
	No	64.5
Growth	Yes	1.7
	No	98.3

Finally, we looked at the relationship between gender, knowing an entrepreneur, and being an entrepreneur. Men were more likely than women to be entrepreneurs if they knew entrepreneurs, and the difference was even more pronounced for growth entrepreneurs.

Fig. 7. Respondents Who Know Entrepreneurs and Are Entrepreneurs, by Gender



CONCLUSIONS

This short survey was an initial attempt to investigate the virality of entrepreneurship. While it could not establish causality, it did show that a large number of U.S. residents know entrepreneurs, and that knowing an entrepreneur is possibly a significant factor in whether a person is also an entrepreneur.

In addition, the survey indicated that the likelihood of knowing entrepreneurs varied widely by location, income, gender, and age. Respondents were much more likely to know entrepreneurs if they were male, had modest income, or were middle-aged. Respondents were much less likely to know entrepreneurs (or be entrepreneurs) if they were female, had a higher income, or were located in the Midwest or South.

We are pouring money into entrepreneurship education, accelerators, and other programs to increase the rate and effectiveness of entrepreneurship. While it is well intended, and early data suggest it can be effective if done well, this study suggests at least some of this effort is misdirected. We could, it suggests, obtain material increases in entrepreneurship simply through doing a better job of exposing people to existing entrepreneurs, especially peers or contemporaries.

While entrepreneurship may be viral, therefore, it is important—from the standpoint of overall wealth creation and economic growth—not to treat entrepreneurship as unalloyed. Instead, we must recognize a few things:

- 1) Women have less exposure to growth entrepreneurs than men
- 2) The young have much more exposure to growth entrepreneurs
- 3) People in lower income strata are much less likely to be exposed to growth entrepreneurs

In all cases, an individual's exposure to entrepreneurs—and to growth entrepreneurs in particular—may increase his or her likelihood of being one. The implication? Entrepreneurship can be viral, but must be introduced early and often in environments where it is least often seen. In particular, growth entrepreneurship is a narrow phenomenon, one that requires much more effort to introduce it to susceptible populations and drive overall economic growth. There is much work to do, but we now have some new and important variable to track in those efforts: the viral transmissibility to entrepreneurship.