

Minority inventors 'lost'

A controversial study finds that economic hardship and lack of exposure to innovation are preventing people from some ethnic minorities, low-income backgrounds and women from becoming inventors

By Bruce Berman

What makes an inventor? Many people from low-income families, ethnic minorities and women do not become inventors because of a lack of exposure and financial support. If these groups invented at the same rate as white men from high-income families, the innovation rate would quadruple.

So say the findings of a study commissioned by the Equality of Opportunity Project (EOP) and conducted by researchers from Stanford, Harvard, the London School of Economics and MIT. EOP analysed the lives of more than 1 million inventors in the United States to understand the factors that determine who becomes an inventor in America.

It found that there are many lost Einsteins who would have had high-impact discoveries had they been exposed to innovation while growing up. The researchers found that while education and intelligence are factors that go into making an inventor, early-life exposure to a culture of innovation – including inventors – and standard of living play a more crucial role.

Under-resourced

"High-scoring black kids and Hispanic kids go into innovation at incredibly low rates," Raj Chetty, a Stanford economist who led the research team told Vox news. "There must be many 'lost Einsteins' in those groups" – children who appear to have been similarly able at a young age as their white and Asian peers but who never got a chance to deploy their skills."

The study shows that children who excelled in math were far more likely to become inventors but that being a math standout was not enough. Only the top students who also came from high-income families had a decent chance of becoming an inventor. Low-income students who are among the very best math students – those who score in the top 5% of all third graders – are no more likely to become inventors than below-average math students from affluent families.

EOP study documents – including an executive summary, slides and a paper – can be found at <http://www.equality-of-opportunity.org/documents/>.

David Leonhardt in the *New York Times* said that he considers the EOP study "the most important research effort in economics today". Nobody knows precisely who the lost Einsteins are, of course, but there is little doubt that they exist."

Not addressed in the study is another reason why those from ethnic minorities and low-income backgrounds infrequently grow up to be inventors: the

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difficulty of becoming an inventor today and the high cost of remaining one. Many graduates from these groups need to support themselves and their families. Accordingly, they may gravitate toward more secure professions – such as accounting, engineering and medicine – as have generations of strivers before them.

Despite an increasing number of inventions, inventing is a questionable enterprise, even in the best setting. There is something impractical about being an inventor, even obsessive-compulsive, and society tends to view them and their output with caution. That many successful US inventors derive from humble origins is a testament to their determination.

Defining an 'inventor' is a challenge in itself; successful ones are not necessarily those with the most patents or citations. It would be remiss to provide prospective innovators from ethnic minorities with the resources they need to invent without knowledge of patent ownership necessary for making their rights meaningful. The IP system today is not an inviting place, even for those with sufficient opportunity.

Fading dream

What makes an inventor depends in part on whether he or she works for a large corporation, university or in a garage. It depends on whether his or her focus is biologics, next-generation chips or a dating app for pets.

The fading American dream documented in the EOP study is not disappearing just because of lack of economic opportunity or exposure to the right people – but because the IP system has become increasingly unresponsive to the needs of creators and small businesses, and to the competitive realities of innovation.

"We ought to think about how to improve what Chetty calls our 'capacity to tap into currently underused potential,'" writes Vox. "He and his colleagues calculate that if women, minorities, and children from low- and middle-income families invented at the same rate as white men from high-income (top 20%) families, there would be four times as many inventors in America as there are today."

More is not enough

Many in the IP community will chuckle at these figures – not because they are wrong but because more inventors means more inventions and more patents, and more patent owners vying for greater returns in an increasingly inhospitable system. The ambitious EOP study fails to address this important issue: even those individuals with appropriate supports cannot turn ideas into innovation and innovation into currency if their rights lack certainty and are unprotected in the courts and misunderstood.

Providing more opportunity to disadvantaged groups and women is long overdue. However, doing so will have limited impact if inventors' rights are uncertain and frequently infringed, and monetisation activities frustrated. Without better support for inventors, potential geniuses will continue to be lost and US innovation leadership with them. **iam**