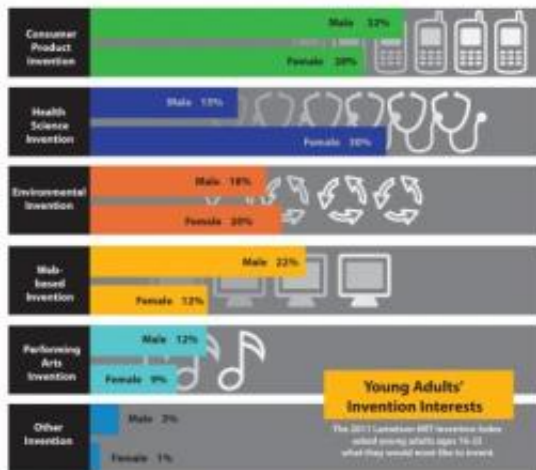


Survey reveals potential innovation gap in the US

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The 2011 Lemelson-MIT Invention Index includes a national survey sample of 1,000 young adults.

Almost one in three (30 percent) of young men and women would most like to invent a consumer product invention. Men also chose web-based inventions (22 percent) and women chose health science inventions (30 percent) at high rates. Credit: Lemelson-MIT Program

Invention and innovation are essential to remaining globally competitive, and a new survey shows an untapped group of potential inventors in the U.S. The 2011 Lemelson-MIT Invention Index , announced today, indicates that American women ages 16 – 25 possess many characteristics necessary to become inventors, such as creativity, interest in science and math, desire to develop altruistic inventions, and preference for working in groups or with mentors – yet they still do not

see themselves as inventive. Young men in the same age group echo these characteristics, highlighting the need to cultivate young adults' interest in science and math, while educating and inspiring them about the impact they can have on others through invention.

Embracing Young Adults' Inventive Skills

The annual Lemelson-MIT Invention Index, which gauges Americans' perceptions about invention and innovation, this year surveyed young men and women ages 16 – 25. Almost three in four young women (71 percent) indicate they are creative, the characteristic they most associate with inventors (63 percent); however, less than one in three (27 percent) describe themselves as inventive. Men also follow this trend; 66 percent say they are creative but only 39 percent describe themselves as inventive.

Further demonstrating inventive traits, young women show a strong affinity for math and science – two of every five female respondents (42 percent) rate these as their favorite subjects in school. More than half of male respondents (53 percent) agree. 35 percent of young women also say they have a family member working in a field related to science, technology, math or engineering. The results reveal young women's innate interest in inventive fields; however, recent statistics show while more women are entering college and obtaining degrees, less than ten percent earn them in technical majors such as computer and information sciences, engineering or math. This proportionately small group indicates a need to educate women about translating their skills and academic interests into inventive careers.

Chad Mirkin, a member of the President's Council of Advisors on Science and Technology (PCAST) and 2009 recipient of the \$500,000 Lemelson-MIT Prize, recently remarked, "This country needs innovative new programs to stimulate the interest of young men and women in

STEM and to challenge them to use their intellect and creativity to invent solutions to some of the world's most pressing problems. Women have an enormous amount to offer in this regard, but aren't currently pursuing science or technology fields at a high enough rate."

Fueling Future Innovation

The Lemelson-MIT Invention Index also reveals that young women and men do not see the U.S. as leading the way in invention; 61 percent of young women view Japan as the leader, with the U.S. ranking second at 27 percent. Young men agree, choosing Japan first (54 percent) and the U.S. second (36 percent).

To improve the U.S. standing, young women cite access to governmental funding (30 percent) and including invention projects during school (36 percent) as the best ways to encourage aspiring inventors. They cite lack of knowledge and concern about funding (65 percent) as the most challenging obstacles. Men agree, noting that providing places to develop inventions (24 percent) is another way to encourage hopeful inventors. The availability of invention tools and education has the potential to boost the quantity of inventive professionals, according to survey respondents.

Joshua Schuler, executive director of the Lemelson-MIT Program, supports this idea. "Our Lemelson-MIT InvenTeam grants initiative and partnerships with national youth organizations, which have access to millions of young people, inspire and empower youth to invent. To highlight a potential path to success, we also recognize award-winning college and professional innovators as accessible role models. We encourage parents, teachers and leaders at the state and national level to do their part and embrace [innovation](#) and seek out invention education experiences for youth."

Inventing for a Cause

The Lemelson-MIT Invention Index results indicate that young people have the skills necessary to invent, and also reveal that nearly half (49 percent) of young women are most interested in pursuing invention to improve the lives of others. Almost two in five men are also motivated to invent to improve lives (38 percent). 58 percent of the female respondents would make a health science or consumer product invention their top priority; men's inventive interest is geared towards consumer products or web-based inventions (54 percent).

Other Interesting Survey Findings

- 39 percent of men and 36 percent of women think that inventors are people who most often work at home or in their garage, illustrating a misperception of [inventors](#) and their careers.
- Young adults show a preference for working in groups or with mentors (73 percent), the style typically associated with professionals in technical fields.
- Young women are most interested in thinking of and designing a solution (57 percent) when it comes to the inventive process; men are also interested in those steps, as well as building the solution (84 percent).

Provided by Massachusetts Institute of Technology

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