



**The 21st Century Economy Depends on a Strong, Diverse, and
Expanded STEM Talent Pool**
The Stevens Indicator, Spring 2019

I write this message still exuberant from Stevens' sixth Awards Gala held on April 6 at the elegant Plaza Hotel in New York City. With nearly 450 alumni, friends, faculty, staff and students in attendance, this year's event again provided an occasion to celebrate the best of the Stevens community. The contributions and achievements of the honorees across a diverse range of domains and industries bring acclaim and distinction to Stevens, and we are so proud of them!

Fresh in my mind — and pertinent to the theme of this issue of The Indicator — are the awards bestowed on four of the honorees, all women graduates of Stevens.

Virginia Ruesterholz '83 Hon. D.Eng. '08, who had an extraordinary career at Verizon before leading our Board of Trustees as its first female chair, received the President's Leadership Award; Pam Cheng '92 M. Eng. '95, executive vice president for global operations and information technology at AstraZeneca, accepted the International Achievement Award; Leanne Metcalfe '00, executive director for research and strategy at Blue Cross Blue Shield, was recognized with the Young Alumni Achievement Award; and Lisa Mascolo '82, managing director, U.S. Public Service, IBM's Global Business Services, was honored with the Distinguished Alumni Award in Business and Finance. I congratulate these outstanding women, along with the other extraordinarily accomplished Gala honorees: Richard Frederick Harries '58, winner of the Stevens Honor Award; Philip P. Crowley '71, Outstanding Contribution Award winner; Richard S. Magee '63 M.S. '64 Sc.D. '68, winner of the Lifetime Service Award; Emilio Fernandez, Friend of Stevens Award; and Robert J. Fiocco '58 M.S. '61 Sc.D. '64, Distinguished Alumni Award in Engineering.

Perhaps it is not so remarkable that in 2019 there are so many Stevens women in leadership roles and having a tremendously positive impact on business, in academe, in the public sector and throughout society. For many generations, a Stevens education has been excellent preparation for a successful career, regardless of gender, race or ethnicity.

But what is surprising is that after many decades of federal investments and employers' efforts to reduce the gender gap in the workforce, we have made so little progress as a nation in reaching parity in the STEM fields. Nationwide in 2015-16, while women accounted for 57% of all bachelor's degrees awarded, they earned only 32% of the STEM degrees and currently make up less than a quarter of the STEM workforce. Because our nation faces a severe shortage of STEM talent — nationally, the ratio of online job postings for STEM workers to unemployed STEM workers is about 17 to 1 — we must find new ways to engage and support all sectors of our society to meet the complex, growing and largely technology-related challenges of our era.

The role models at Stevens, including our first female dean of the Schaefer School of Engineering and Science and the many talented and pioneering female faculty who are inspiring students through their teaching and mentorship and conducting ground-breaking research, are paving the way for new generations of students — both male and female — to succeed in a dynamic, highly diverse and technology-based global society.

I congratulate them and am grateful for all that they do.

Per aspera ad astra,



Nariman Farvardin
President, Stevens Institute of Technology

Note: Statistics on the percentages of women in undergraduate programs in STEM and in the workforce are derived from these sources:

Noonan, Ryan. Women in STEM: 2017 Update (U.S. Department of Commerce, Economics and Statistics Administration, Office of the Chief Economist, November 13, 2017).

Snyder, T.D., de Brey, C., and Dillow, S.A. (2019). Digest of Education Statistics 2017 (NCES 2018-070). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, DC.



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