

Widening Participation in Research & Innovation



Father Knows Best



Ask Us...

We lay our heads down here at night

Nancy Cantor
Chancellor
Rutgers University – Newark

Gender Summit 5
Cape Town, South Africa
Benefits of STEM Diversity in Operation
April 28, 2015

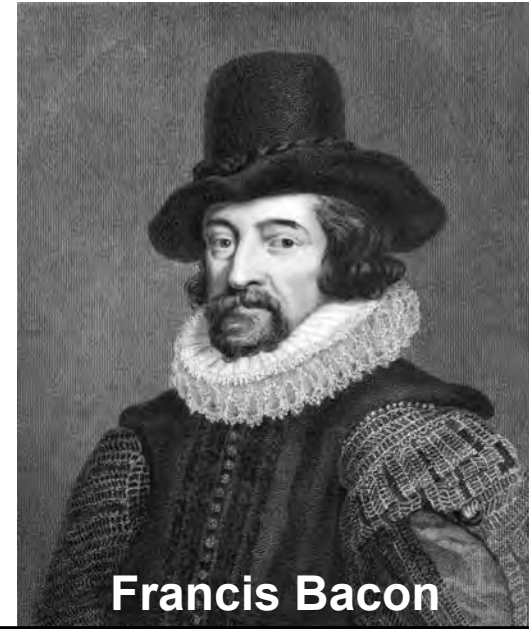
Solitary Genius?

Bacon saw science as a fundamentally communal endeavor, dependent upon “the accumulating cultural base and the concerted efforts of men [sic] of science sharpening their ideas through social interaction.”

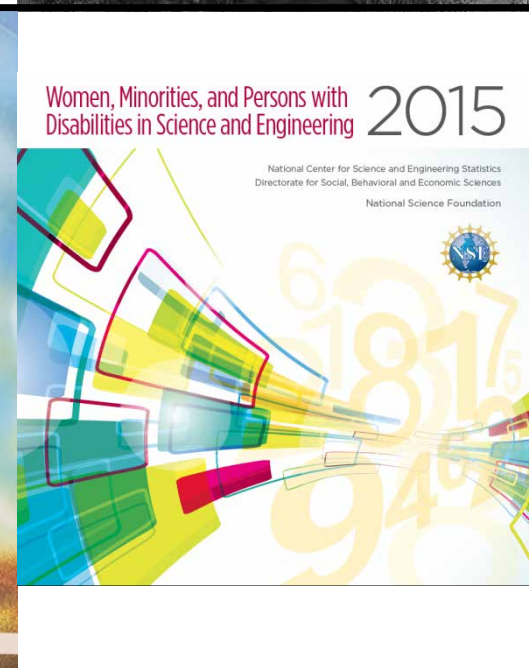
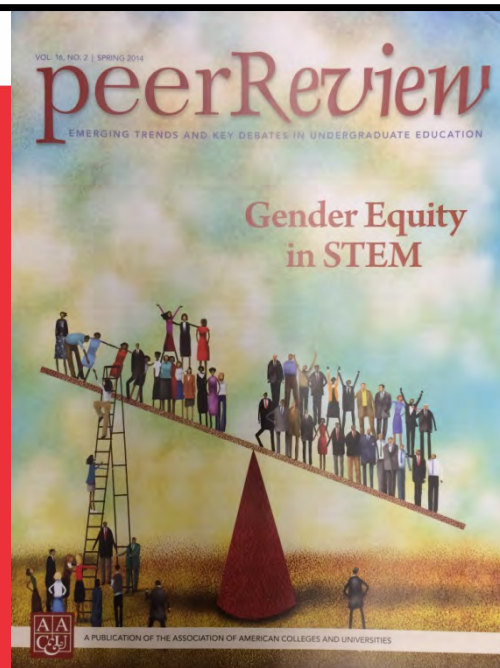
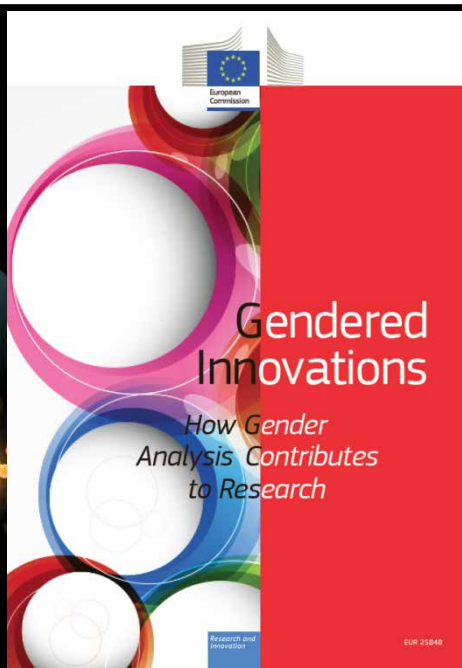
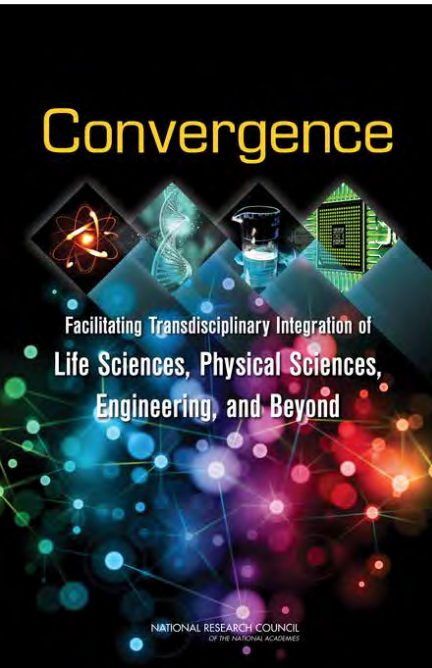
Robert Merton

“... if one is to stand on the shoulders of giants, one must first climb up their backs, and the greater the body of knowledge, the harder this climb becomes.”

Benjamin Jones



Francis Bacon



Insular Science

“Civic science aims to tap the immense potential of science—and scientists—to transform society ... The civic science framework recognizes that many talents and different kinds of knowledge—cultural and narrative, experiential, local, spiritual, among others—are integrated in effective collaborative efforts as a community of experts, with scientific knowledge on tap not on top.”

Harry Boyte



The Miami Herald
In Florida, officials ban term
'climate change'

Los Angeles Times
Disneyland measles crisis should
wake up the anti-vaccination
crowd

The Washington Post

Americans are still scientifically illiterate —
and scientists still need a PR team

Generative Partners & Communities of Experts



Community Problems.
University Solutions.

Promoting statewide economic health and job creation in rural [redacted] and throughout the state. [redacted]

VS.

VOL. 16, NO. 1 | WINTER 2013
Diversity & Democracy
CIVIC LEARNING FOR SHARED FUTURES

“Institutions and communities are developing a new paradigm for generative partnerships ... not done to but designed with a multifaceted group of stakeholders whose norms, resources, perspectives, and histories meet, greet, and collide in the crucible of community that binds one person’s welfare to another’s.”
Caryn McTighe Musil

Publicly Engaged Science & Innovation

Scott E. Page

Realizing STEM Equity and Diversity through Higher Education – Community Engagement

Significant societal problems cannot be solved without full inclusion

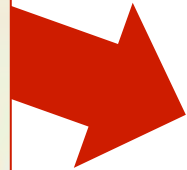
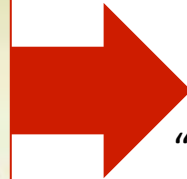
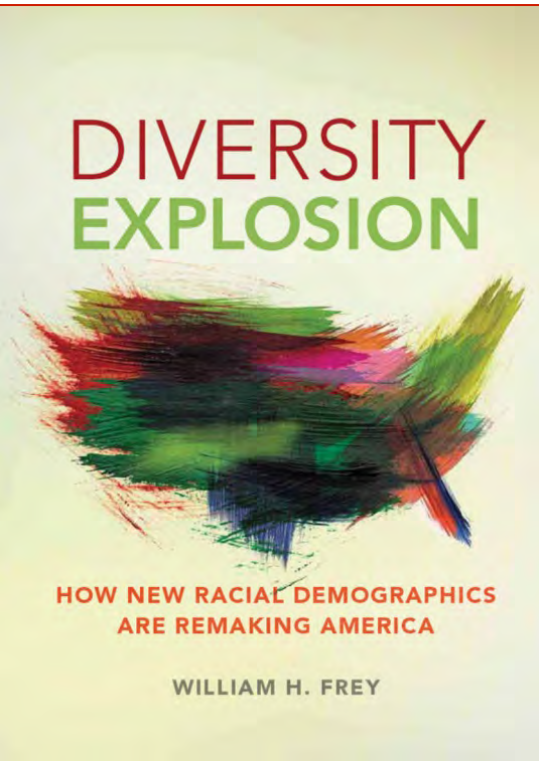
Inclusion will result in better science and a better society

Higher education – community engagement focused on locally manifested global problems is a good way to realize full inclusion

THE DIFFERENCE

HOW THE POWER OF DIVERSITY CREATES BETTER GROUPS, FIRMS, SCHOOLS, AND SOCIETIES

Ensuring Diversity in STEM



Students view Google demographics report as cry for diversity in STEM programs

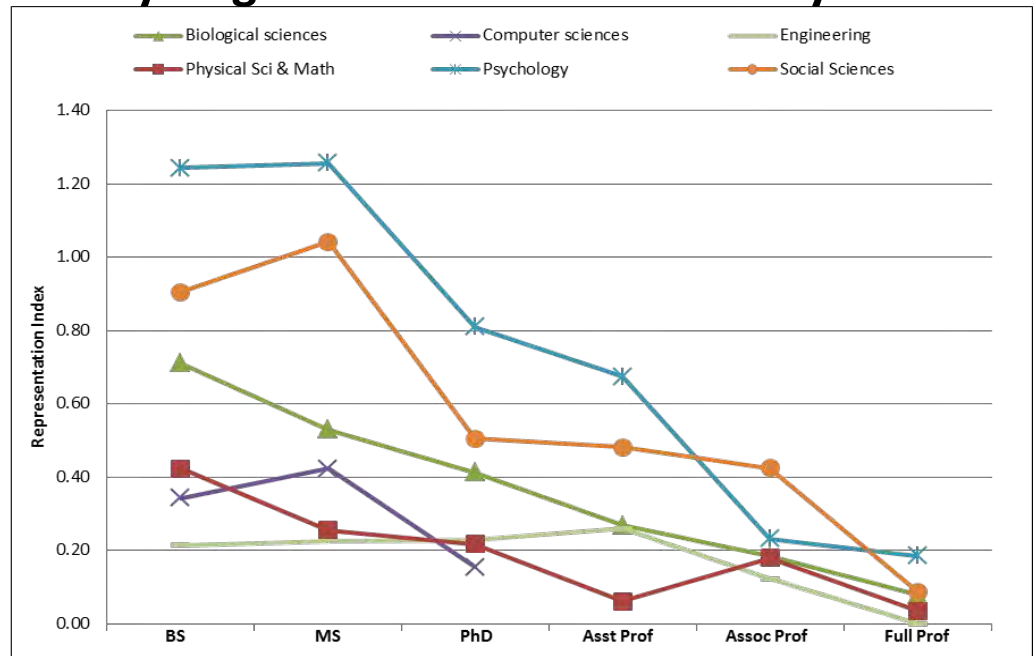
The New York Times

A Future Segregated by Science?

By Charles M. Blow

“...is this an area in which the future will feel more stratified, and in which the inequalities, particularly economic ones, will mount?”

Representation Index for Women of Color by Degrees Awarded and Faculty Rank



National Science Foundation National Center for Science and Engineering Statistics, 2013

Data for women faculty in computer sciences suppressed.

Representation Index = % Representation in a category/% Representation in US population

Rankins, et al., Peer Review, Vol 16, No. 2, 2014

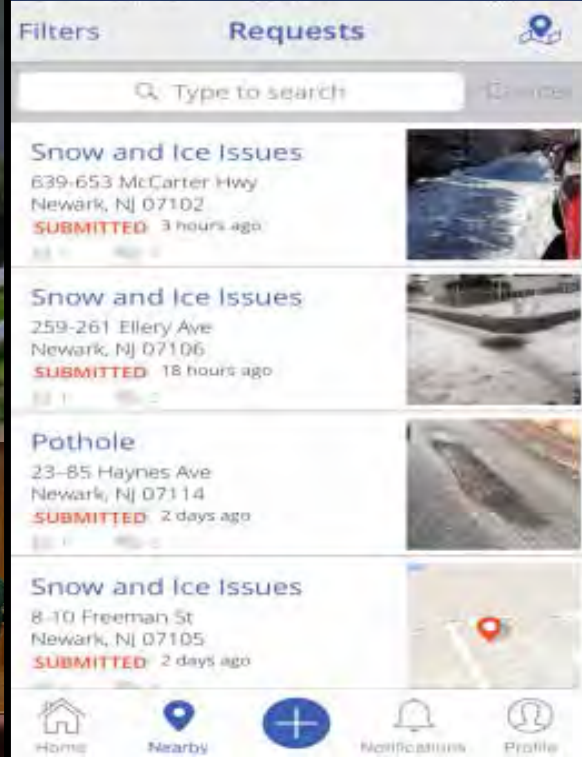
Good for Science, Good for Society



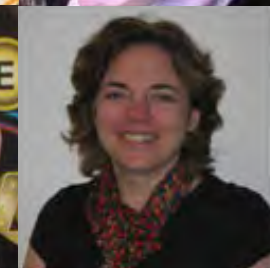
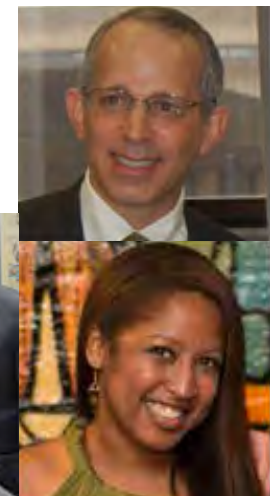
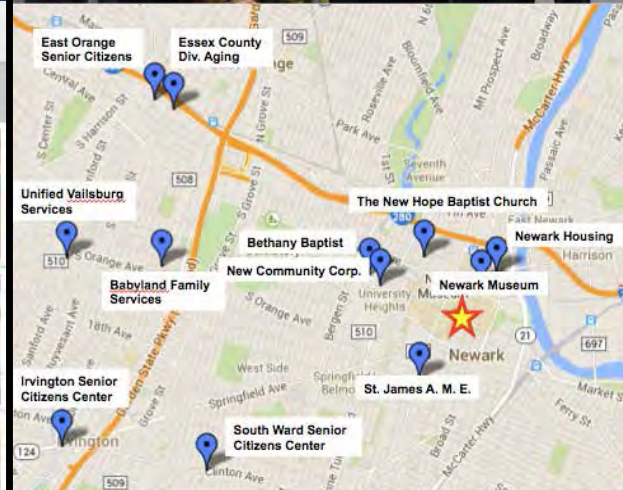
Greening Newark



Greater Newark Youth Violence Consortium



Gluck Lab
African American Brain Health Initiative



Navigating the STEM Perfect Storm

