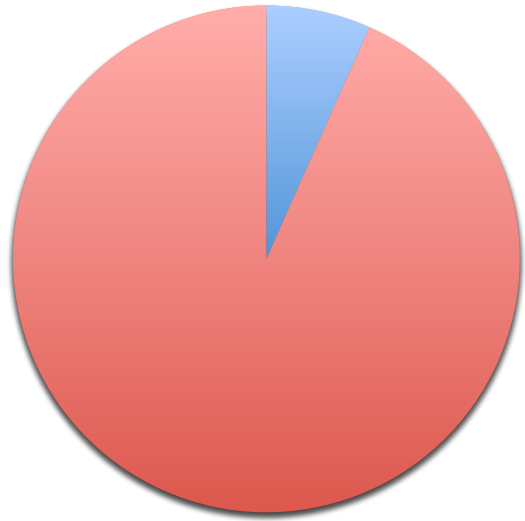


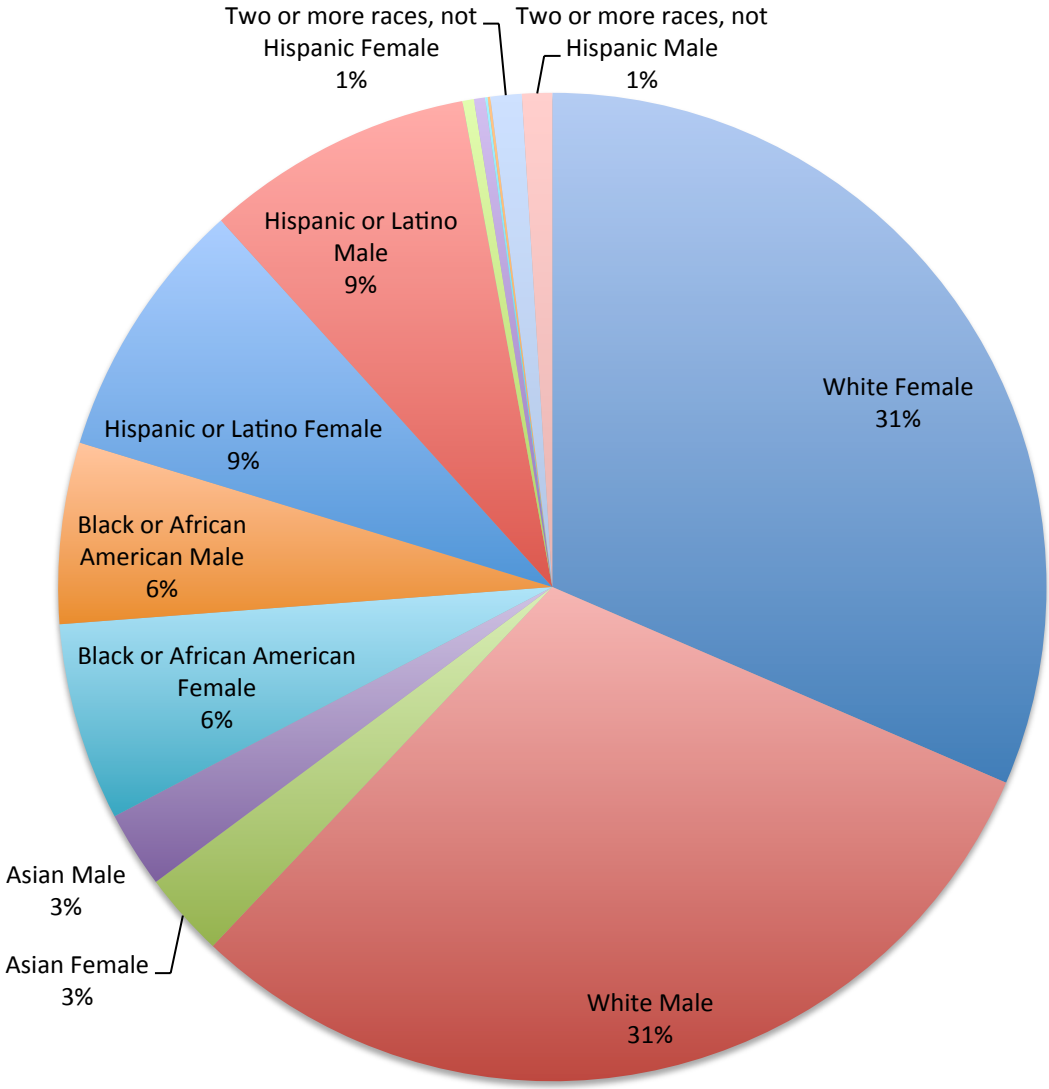
Increasing Equity, Inclusion and Excellence in Nuclear Science

S. Yennello

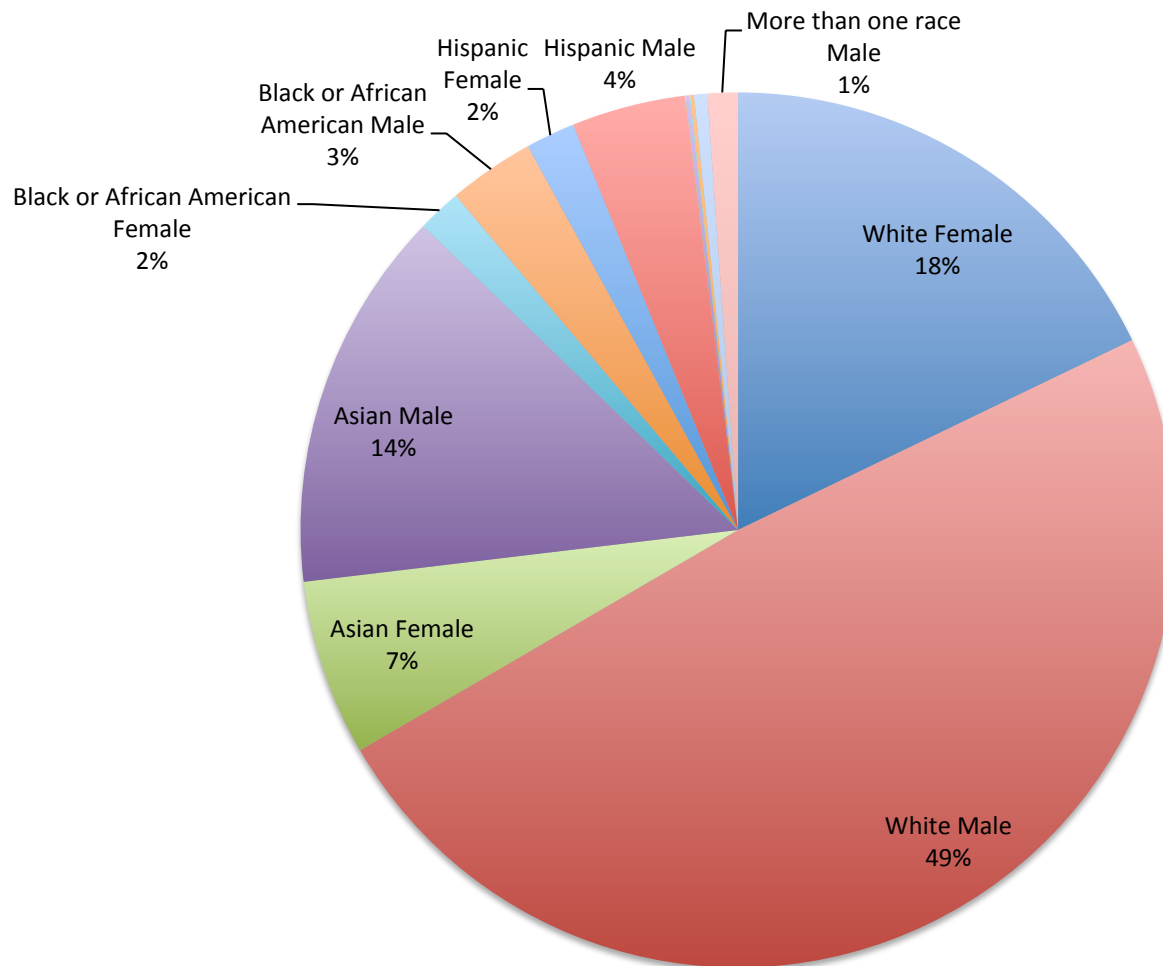
Texas A&M University



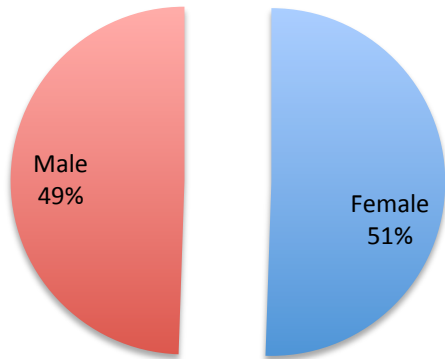
Resident population of the United States: 2014



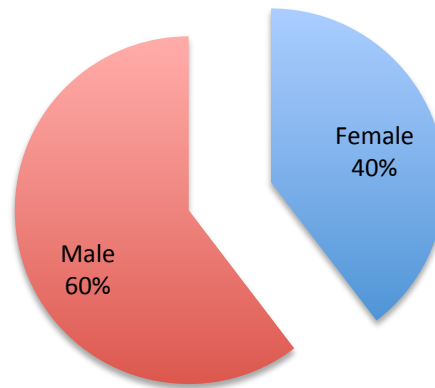
Employed scientists and engineers: 2015



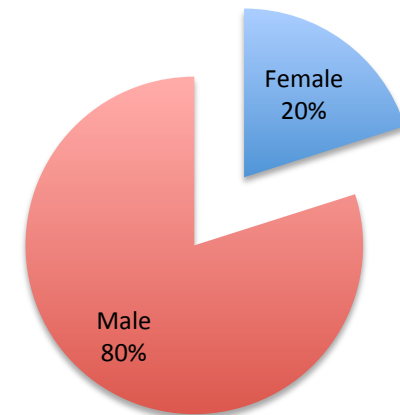
US population, Age 18-24



Intentions of freshmen to major physical sciences 2014



Enrolled graduate students Physics 2014



BEFORE



To me, a scientist is bald and has hair coming out of the sides of his head. . . .

Scientists live in their own world and the rest of society puts them there.

"You can not judge a book by the cover!" Scientists come in all shapes and forms. Women, men, chemists, biologists, and physicists are all in the field of science.

AFTER



ALL



“Help students believe in themselves at the earliest possible stage”



- Building Science Identity
- Acknowledging Implicit Bias
- Mitigating Stereotype threat
- Developing Growth Mindset

Science Identity Influences Science Persistence

Possible Self

Role model



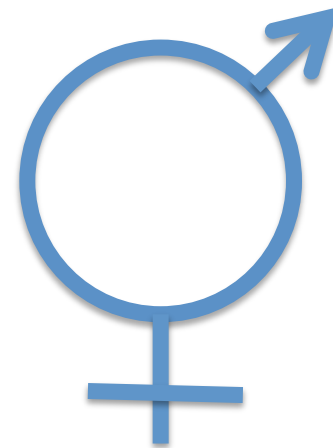
GORDON RESEARCH CONFERENCES

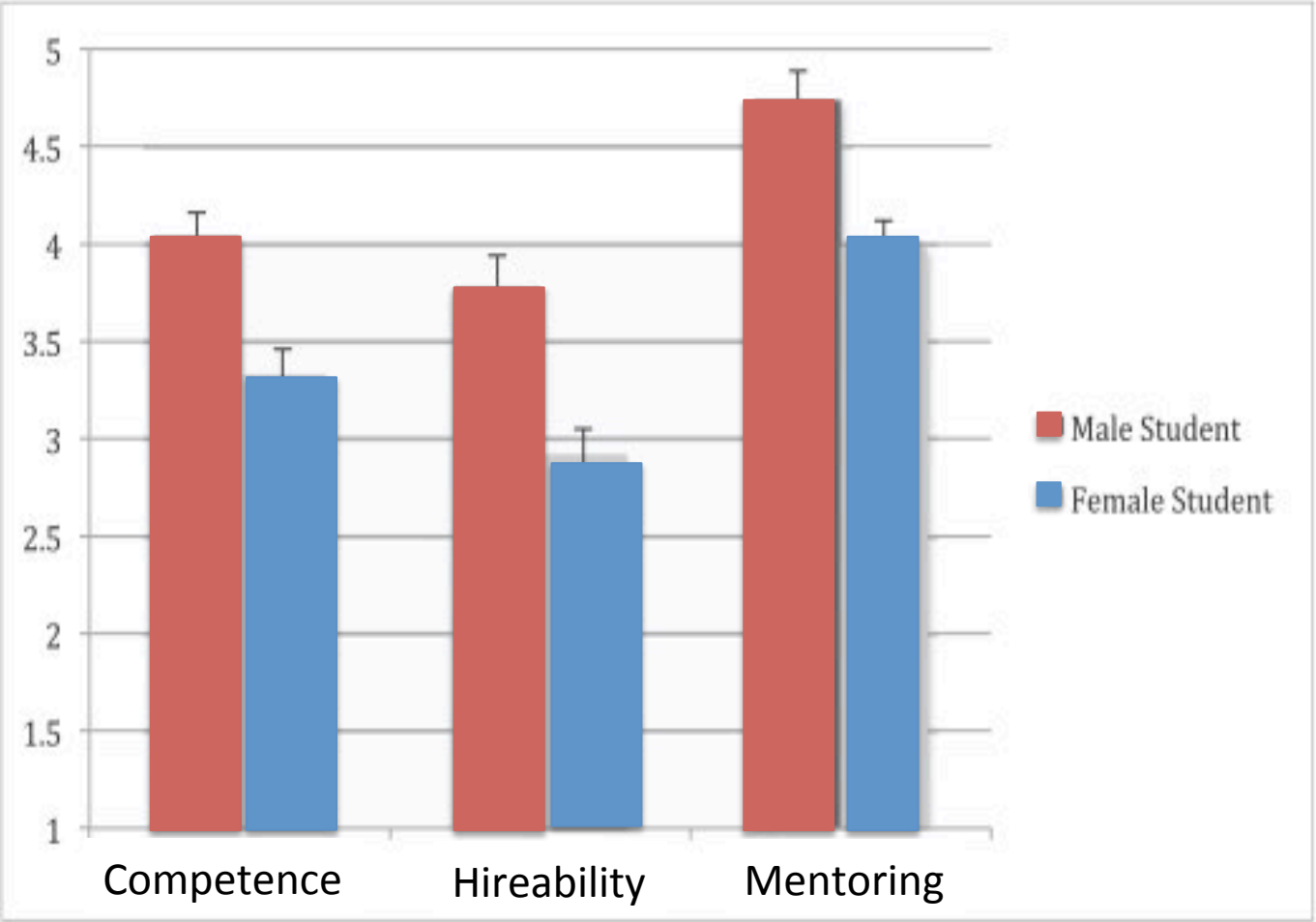
COLBY JUNIOR COLLEGE
NEW LONDON, NEW HAMPSHIRE

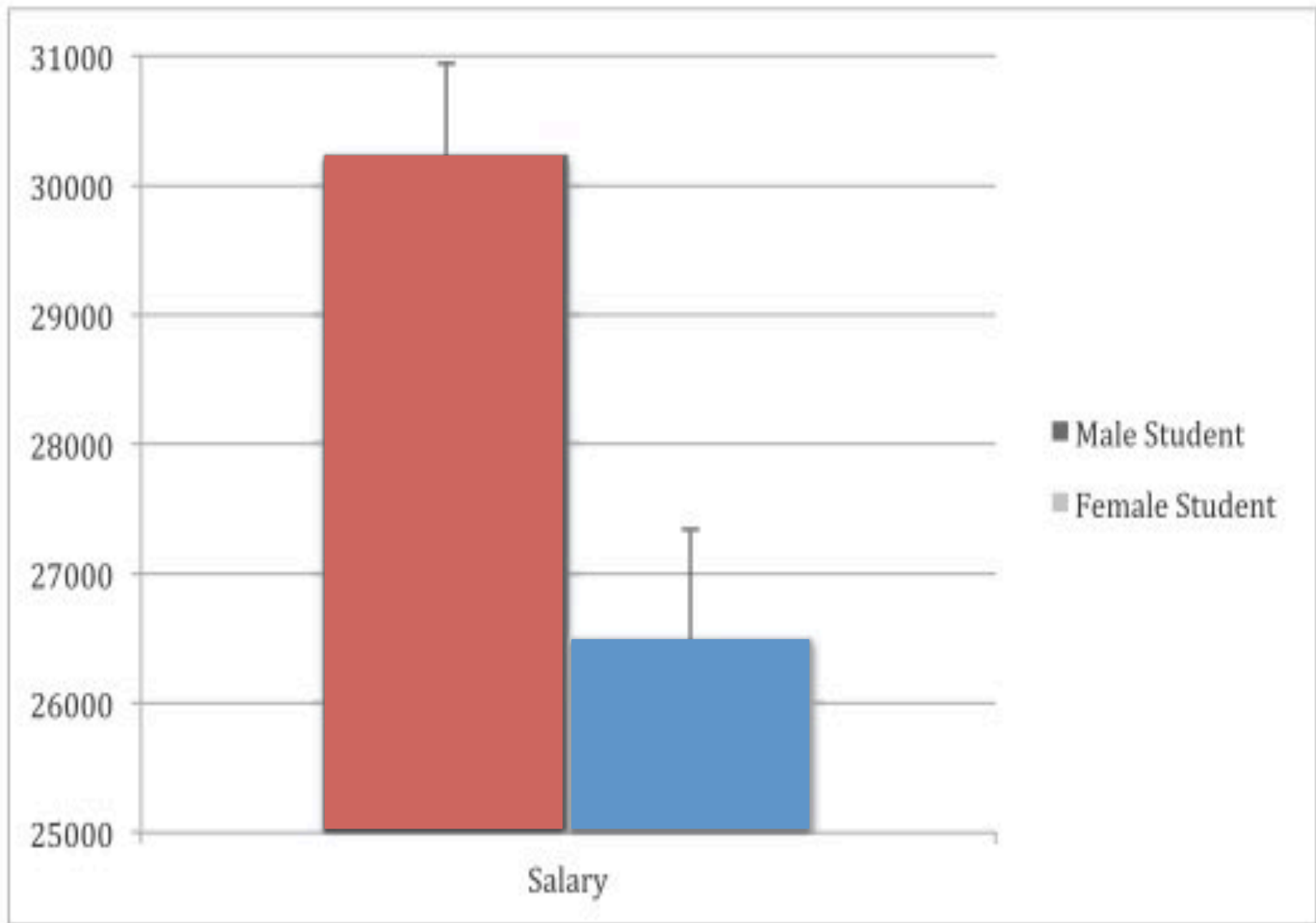
NUCLEAR CHEMISTRY

John M. Alexander, Chairman
Raymond Sheline and G. D. O'Kelley, Co-Vice Chairmen
20-24 June 1966

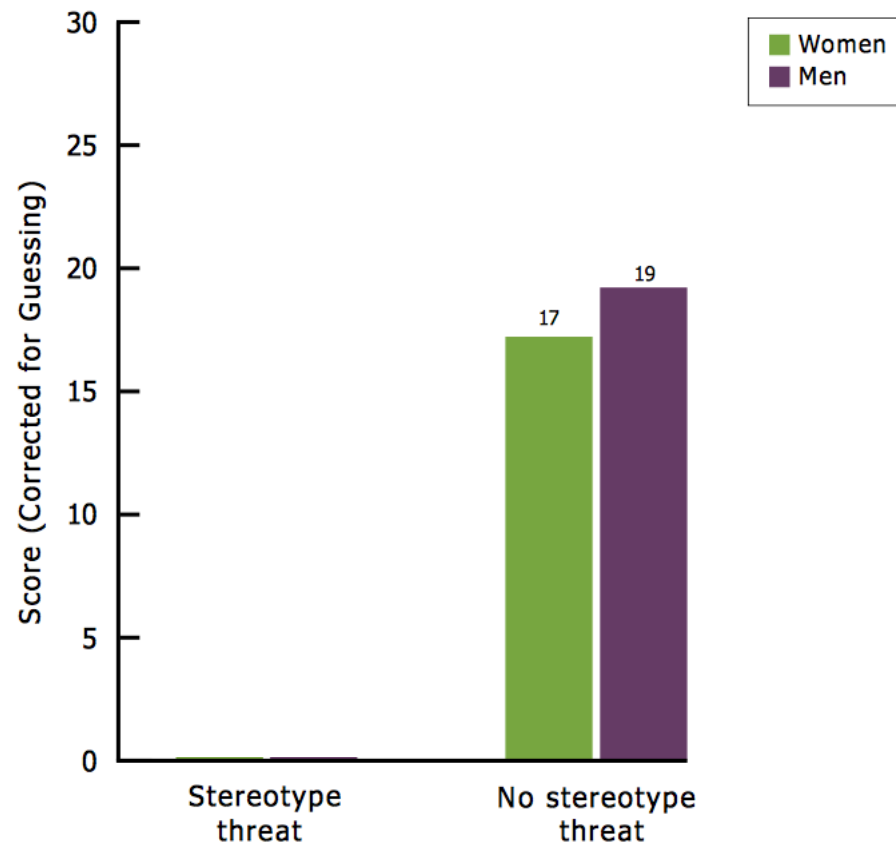
“Ben Barres gave a great seminar today, but then his work is much better than his sister's.”







Performance on a Challenging Math Test, by Stereotype Threat Condition and Gender



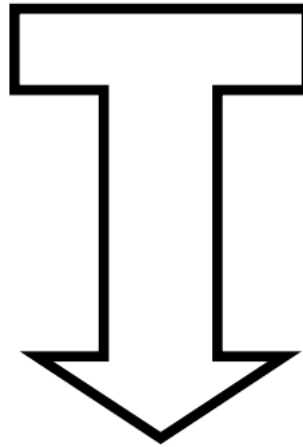
Spencer et al., 1999, *Journal of Experimental Social Psychology*, 35(1), p. 13.

**Field-specific
Ability Beliefs**

Belief that success in a
field requires raw
aptitude or talent

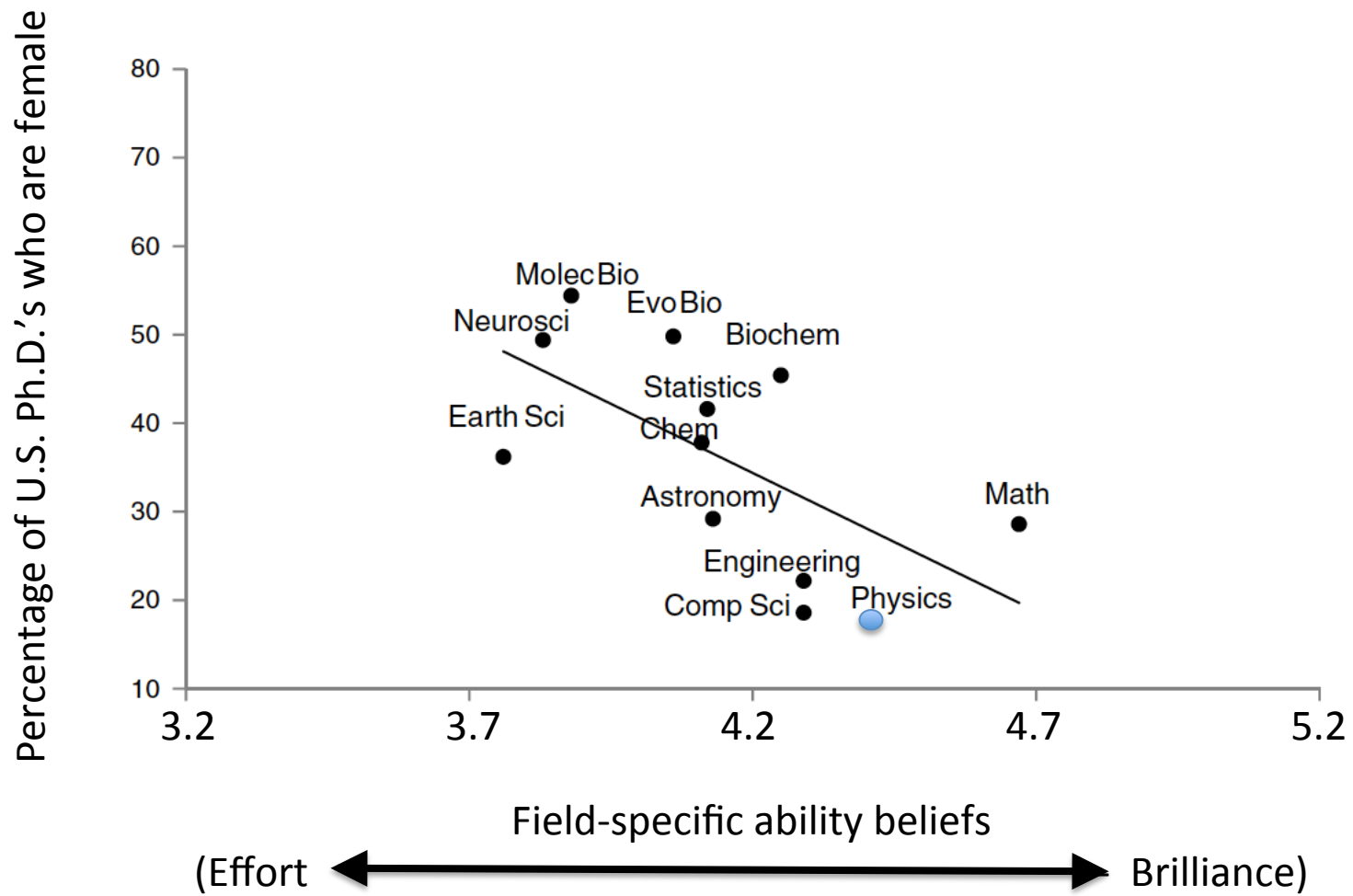
Cultural Stereotyping

Belief that men are more
likely than women to
possess raw intellectual
ability

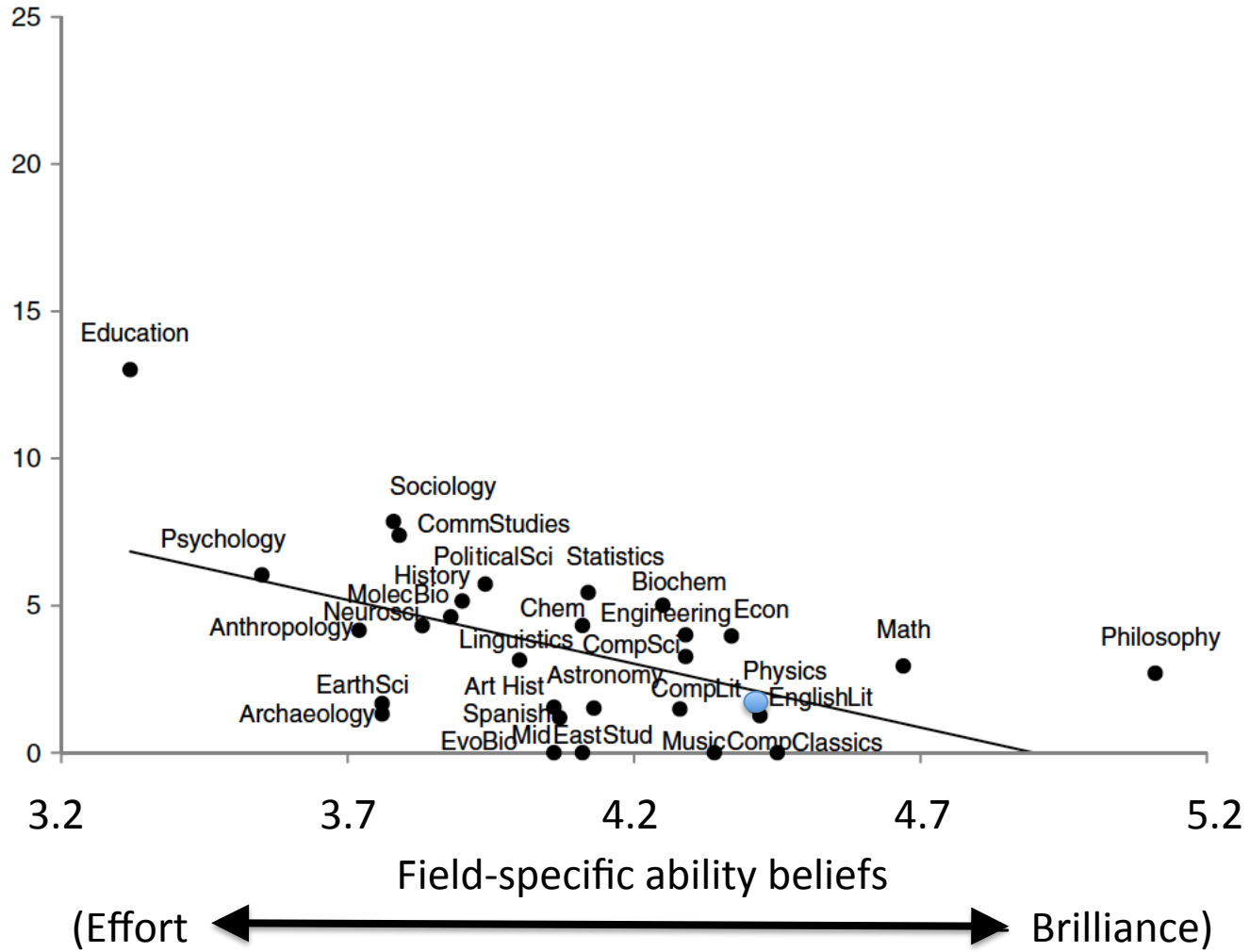


Academic Gender Gaps

Women are
underrepresented in fields
that emphasize the need for
innate talent rather than
effort



Percentage of U.S. Ph.D.'s who are African American

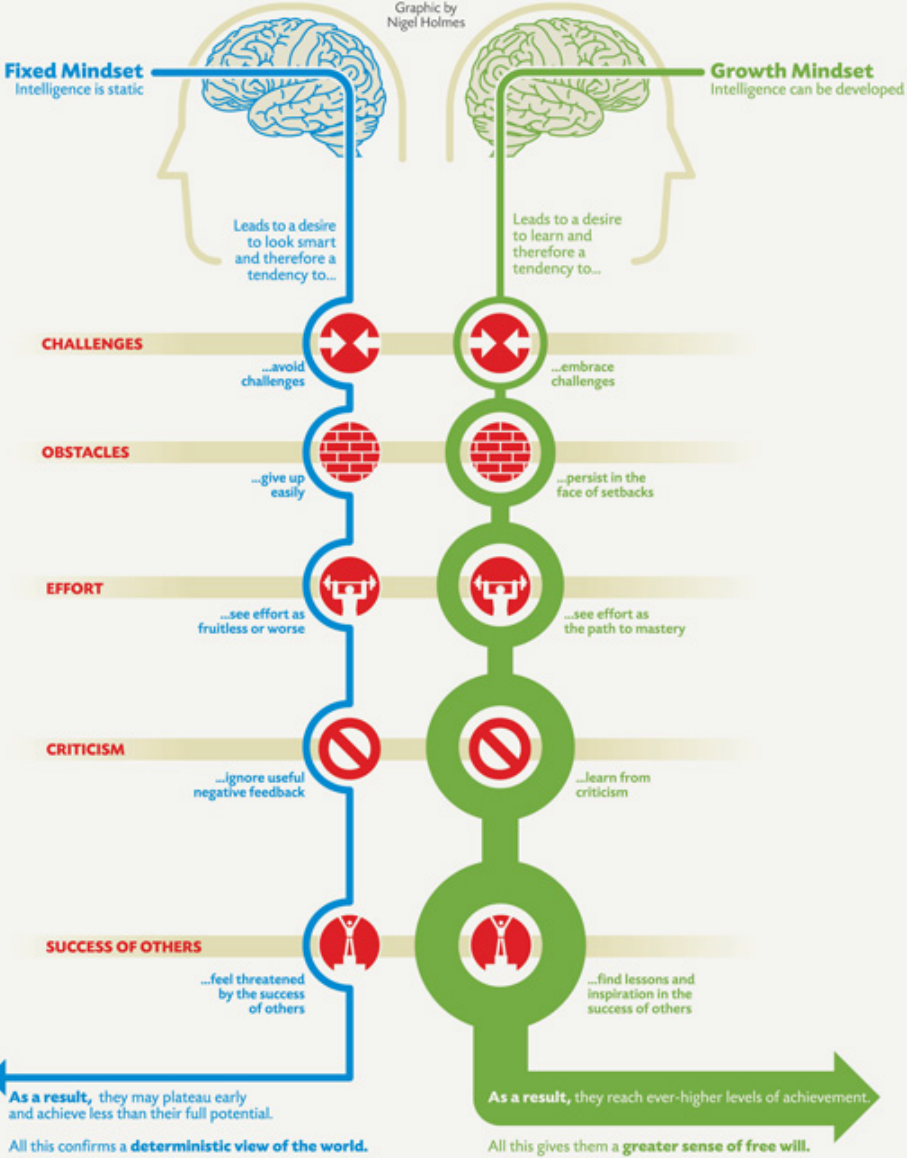


Behave in ways that embrace the attitude that intellectual skills can be acquired/enhanced.

TWO MINDSETS

CAROL S. DWECK, Ph.D.

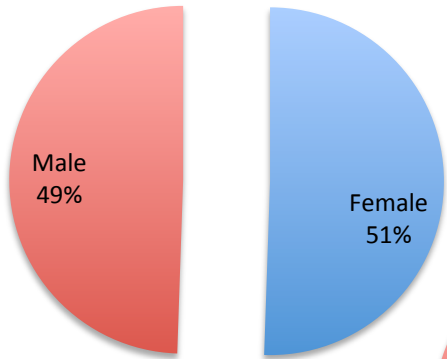
Graphic by Nigel Holmes



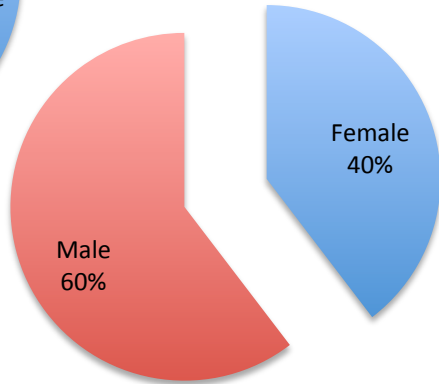
If you build it
they will come...

Impossible is not a fact it is an
attitude

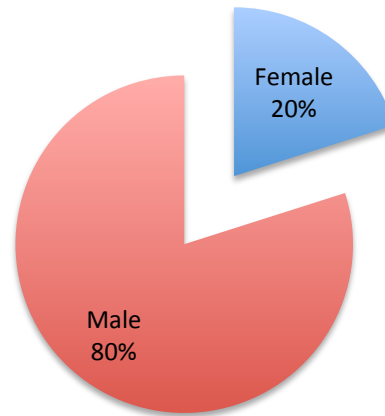
US population, Age 18-24



Intentions of freshmen to major in physical sciences



Enrolled graduate students, Physics



APS Fellows, DNP nominated

