Progress in the past 100 y... has made life significantly better for my daughters.

In my lifetime ... women make up ~half the workforce (and) are leading in every sector .....Gone are the days when you needed a husband to get a credit card.

BUT We are still boxed in by stereotypes about how men and women should behave.

Gendered stereotypes

In a patriarchal society:

- Men are leaders; active; agentic
- Men valued for what they do
- Women adorn/care for children
- Women are “property” of men; passive
- Women valued for what they look like and their relationship to men
Women have to work harder than men to succeed

- Columbia Business School asked students to rate real CV:
- Entrepreneur worked at Apple, software co, and was a partner at VC firm.
- Proficient networker, v powerful friends eg Bill Gates.
- Described as “catalyst” and “captain of industry”.
- Howard or Heidi Roizin – both were rated competent and deserving respect
  - Students liked Howard.
  - They didn’t like Heidi.
  - She was more selfish, less desirable as a colleague not "the type of person you would want to hire/work for."

Unconscious bias by u/g students?

Gendered language in Teacher reviews 2015

Rate My Professor – analysis of online reviews (Ben Schmidt)
Male Profs are more brilliant, awesome, funny and knowledgeable.
Unconscious bias by u/g students?

Rate My Professor – analysis of online reviews (Ben Schmidt)
Female Profs are more strict/bossy, annoying, beautiful/ugly
Unconscious bias by Professors

Harvard study showed that the same CV for a student intending to go on to postgraduate research was:

- Rated lower for competence (~15%)
- Rated lower for hireability (~15%)
- Rated lower for starting salary ($4K or ~15% less)
- Rated lower for amount of mentoring offered (~15%)

By men and women faculty

........if the applicant’s name was Jennifer not John

Moss-Racusin et al PNAS (2012)
Unconscious Gender Bias in Computer Programming

1.4 million computer programmers. Analysis of submissions of new code revealed that code written by women **accepted 78.6% of the time**; code written by men **74.6% (5% more often than men)**

When female coders indicated their gender: acceptance rate **62.5% (16% less)**. Suggest women coders face a persistent gender bias.

Why should we change things?

- Better for everyone Athena SWAN UK
- Higher investor returns Credit Suisse
- Increase collective intelligence Science 2010
- Diversity improves performance Mike Fraser VP and Head HR, BHP Billiton 2014
The “stupid curve” (coined by Mike Cook, Deloitte) describes the over-representation of men in management.
Men and women graduates enter the workforce in about equal numbers, men have a nine times greater chance of reaching executive level than women (CEW, 2009, 2).

Bell S & Yates L
"Women in the Scientific Research Workforce: Identifying and sustaining the diversity advantage"
ARC Linkage project 2011-2014 (LP110200480)
University of Melbourne

Source: DIIISRTE Higher Education Statistics Collection, customised data, 2011
Attrition of women from the scientific professions impacts negatively on productivity and, through the consequent failure to achieve diversity, limits innovation

(Bell et al 2009; Hewlett et al 2008; NAS 2007)

How can we change this?
Leadership must come from the top:
The first step in fixing a problem is recognizing there’s a problem.

“gender bias in the advertising industry does not exist”
Kevin Roberts has now resigned from Saatchi & Saatchi.
What can Institutions do? #1

- Lead from the top & make gender equity a priority
- Collect the data & publish workforce gender stats
- Appoint a Gender Equity Champion
- Highlight issues that must be addressed
- Set diversity goals, update annually, measure progress
- Include Equity and Diversity as an agenda item on all decision-making committees
- Publish rates of pay for men/women; address any gender pay gap

The study found a "systematic bias" in favour of male faculty over female faculty when it came to salaries. Researchers looked at the average salaries of male and female faculty based on appointment type, department, rank and number of years in the rank. It found a difference of $3,515 on average.

“The decision was clear: we had to close the unfair gap in pay between our female and male professors” VP David Wilkinson
What can Institutions do? #2

- Set up Departmental Gender Equity committee (men/women) that report to central committee
- Provide conference support for primary carers
- Establish new metrics that reward service, support, good mentoring, living University values
- Define core working day (school)
- Evaluate staff recruitment statistics – modify processes where necessary
- Institute women-only promotion and recruitment rounds to address historic imbalances

"The Equal Opportunity Act specifically permits an organisation to engage in what is overtly a discriminatory act, but for the purposes of ensuring equal opportunity overall," Discrimination lawyer Mr Skinner said.
What can Institutions do? #3

• Look at images on website – male? Female?
• Train all decision makers in unconscious bias management – at regular intervals
• Check each other & panel/committee outcomes for unconscious bias
• Ensure sufficient, affordable, high quality childcare places
• Provide Family/Lactation rooms in buildings
• Develop central webpage highlighting support/info for progression of women
• Evaluate workforce patterns

Weekly Hours Associate Professors Spend on Service and Mentoring by Race and Gender

Source: UMass Work-Life Study

- **White Women**
  - Service to University: 12
  - Service to Profession: 5
  - Mentoring: 11

- **Women of Color**
  - Service to University: 12
  - Service to Profession: 6
  - Mentoring: 14

- **White Men**
  - Service to University: 5
  - Service to Profession: 6
  - Mentoring: 8

- **Men of Color**
  - Service to University: 9
  - Service to Profession: 8
  - Mentoring: 9

- **Source**: https://www.insidehighered.com/advice/2015/06/26/essay-diversity-issues-and-midcareer-faculty-members
What can Institutions do? #4

• ENACT A PANEL PLEDGE

• Male senior Execs pledge not to accept invitations to panels or conferences that are not gender balanced

• Establish policy that University panels and committees are gender-balanced (eg UWA)

• Don’t support (with funds/in-kind) conferences without gender-balanced invited speaker lists

• Ask why, when there are not enough women

• Learn from successes elsewhere

Harvey Mudd College

Increased %women graduating from computer science from 12 to ~40% in 5 years through three major changes. 
https://www.hmc.edu/about-hmc/2015/03/26/new-report-on-women-in-stem-features-harvey-mudds-CS-program/

%women graduating from computer science in 2016 was 54%

In 2014, HMC graduated more women than men in its engineering class

In 2016, HMC graduated more women than men in its physics class
Summary

- Diversity is good for business and science
- Stereotypes damage men and women
- We are all biased and old stereotypes die hard
- Be aware of your own biases (Harvard Implicit Association online test)
- Put gender equity first not last
- Challenge the status quo
- Don’t tolerate sexism and harassment
- When there are few women - ask why
- Identify obstacles to progress
- Change the way we do things now
- Make the world a better place; where everyone has an equal chance to excel
More Info and Ideas (not exhaustive)

- Male champion of change website
- “Lean In” – Sheryl Sandberg (COO Facebook)
- Diversity Council of Australia website
- UN Women website
- “Thinking, Fast and Slow” Daniel Kahneman
- AAS Early&Mid Career researcher forum “Gender Equity” Michelle Dunstone, Bob Williamson
- Women’s Agenda website
- NHMRC women in health sciences committee website
- Annabel Crabb “The wife drought”
- Twitter
- Women in Science Australia