

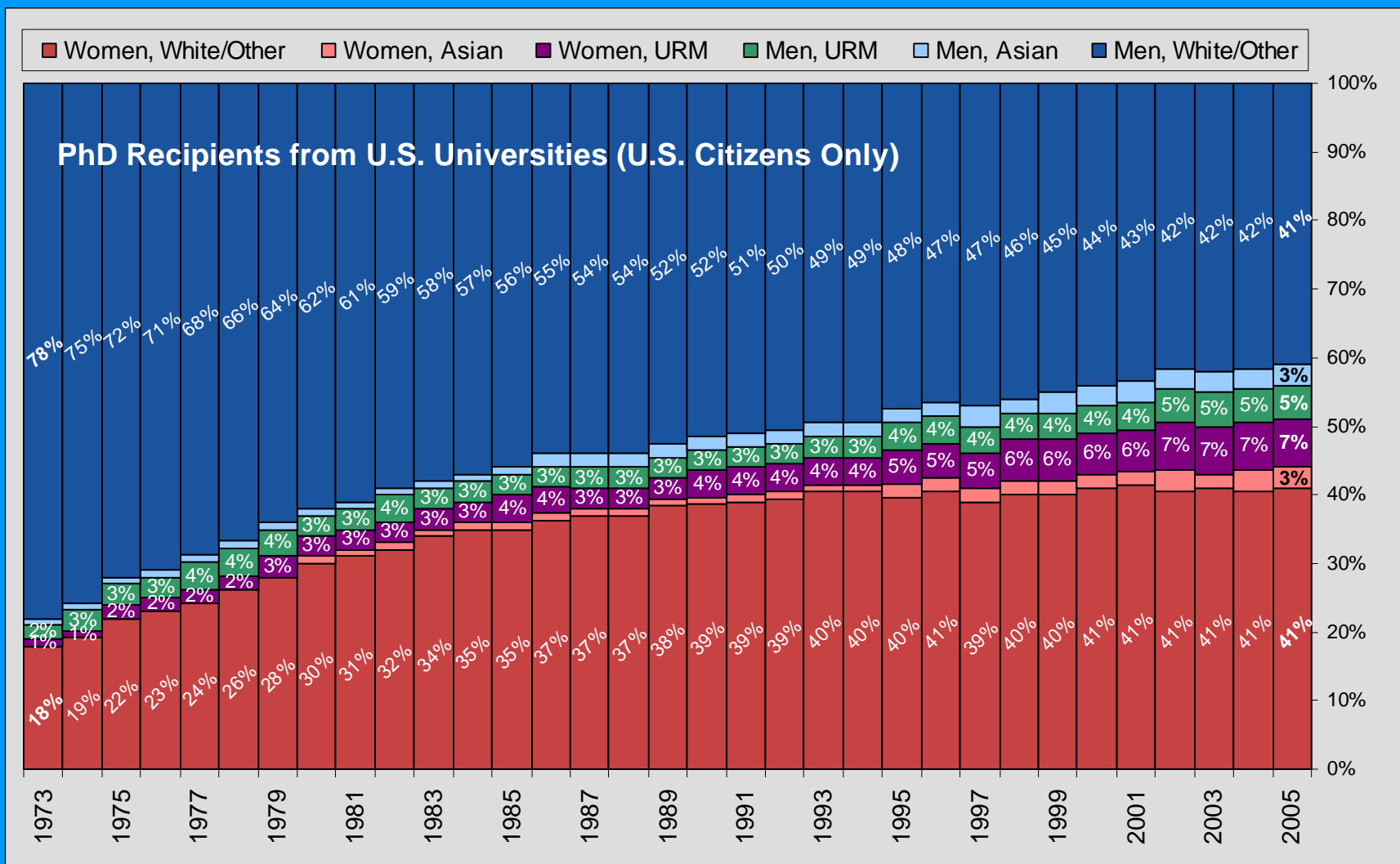
Improving the Fit Between Family and Career for Academic Women

Kathleen Christensen
Alfred P. Sloan Foundation

*Sustaining Women Through Critical Transition
Points in Science, Engineering and Medicine
Workshop*

National Academies of Science
September 19, 2008

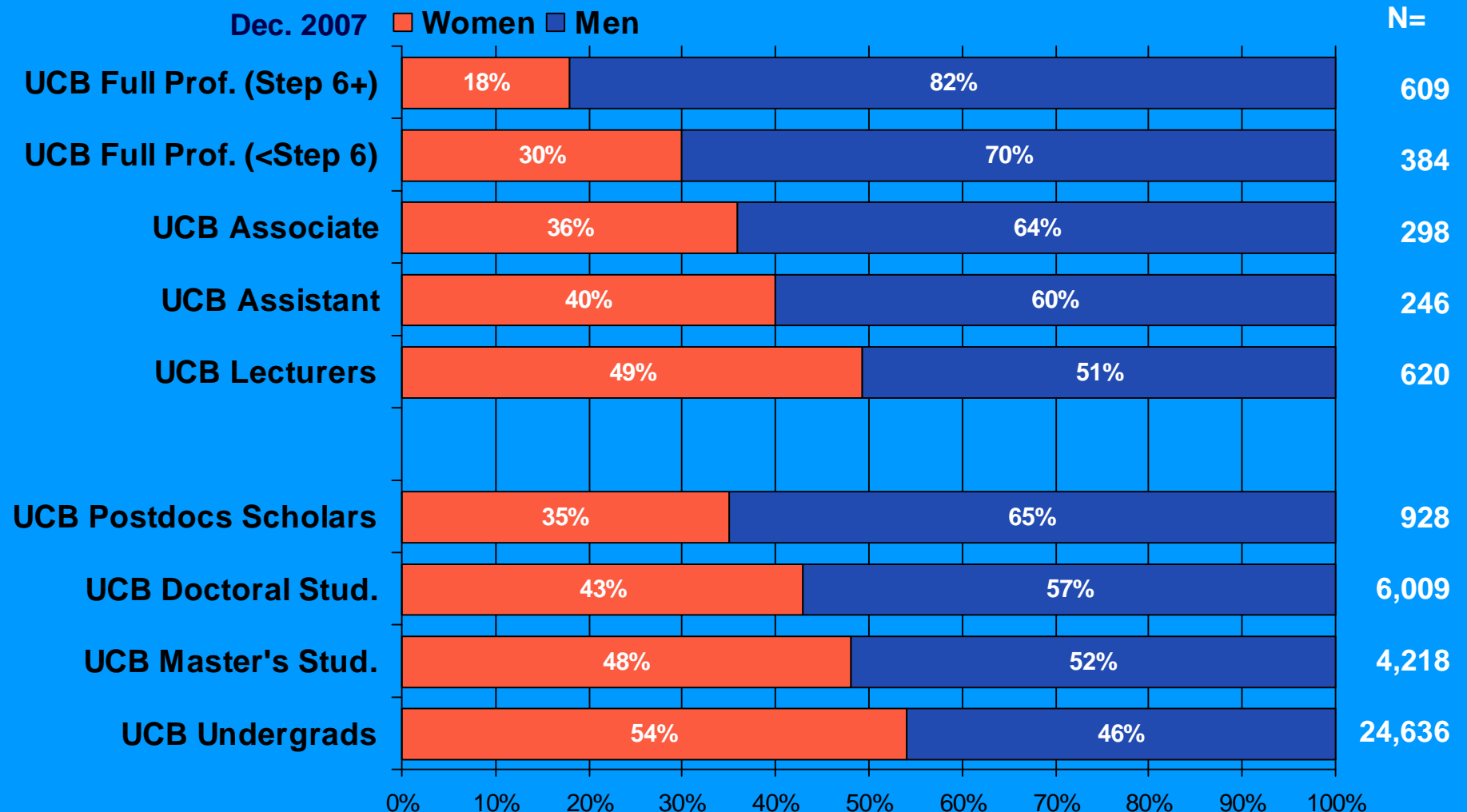
Increase in Women Ph.D.s – 1973 to 2005



Source: NSF, Survey of Earned Doctorates, taken from Webcaspar.

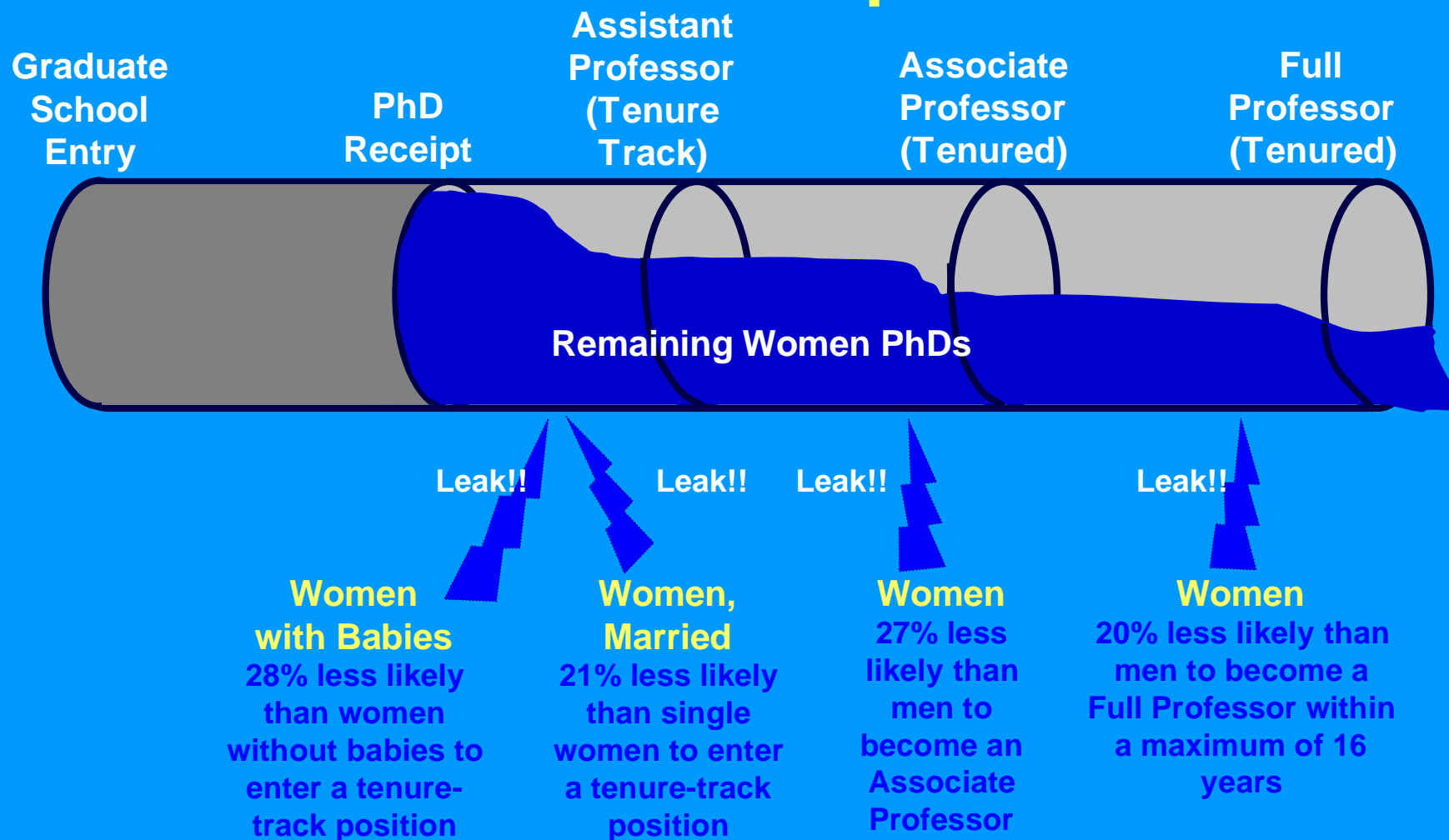
Source: UCOP, "Long Range Planning Presentation," before the University of California Board of Regents, September 2002

UC Berkeley (UCB) Tenure-Track Faculty, Postdoctoral Scholars, Graduate Students, and Undergraduates



Sources (top to bottom): UCB Fac. Pers. Records, 2007; UCB HRMS Aff. Action detail rep., 2007 (postdocs); Office of Student Research Student Census File, 2007.

Leaks in the Academic Pipeline for Women*

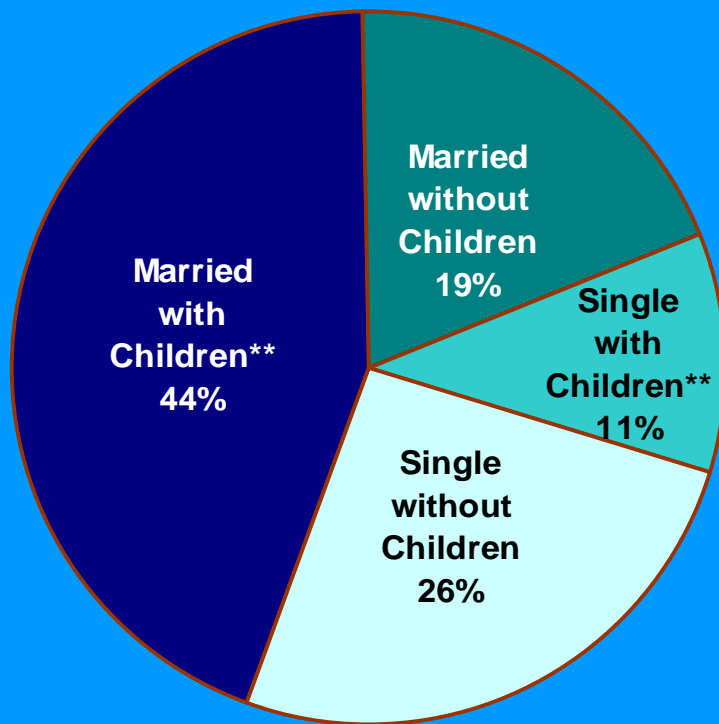


* Results are based on Survival Analysis of the *Survey of Doctorate Recipients* (a national biennial longitudinal data set funded by the National Science Foundation and others, 1979 to 1995). Percentages take into account disciplinary, age, ethnicity, PhD calendar year, time-to-PhD degree, and National Research Council academic reputation rankings of PhD program effects. For each event (PhD to TT job procurement, or Associate to Full Professor), data is limited to a maximum of 16 years. The waterline is an artistic rendering of the statistical effects of family and gender.

Note: The use of NSF data does not imply NSF endorsement of research methods or conclusions contained in this paper.

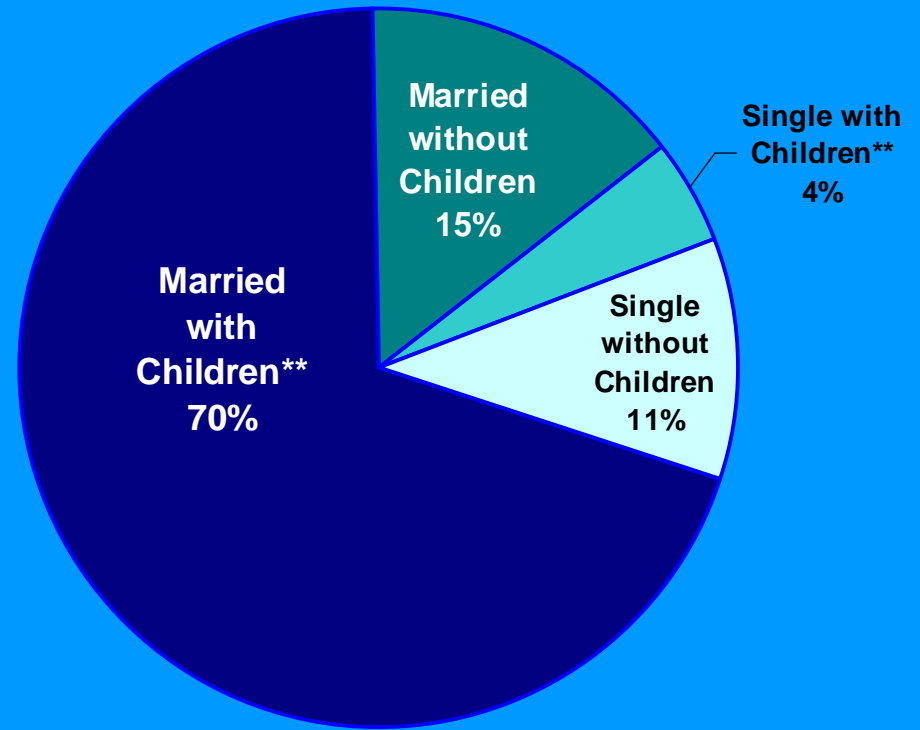
Family Status of Tenured Faculty Sciences, Social Sciences, and Humanities in the U.S.*

Women



N=10,652

Men

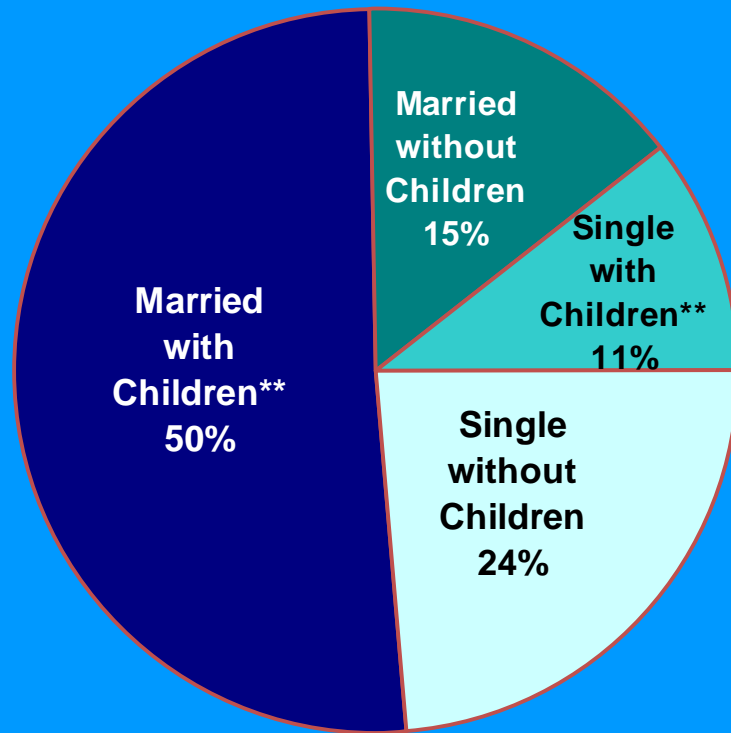


N=32,234

*PhDs from 1978-1984 Who Are Tenured 12 Years out from PhD.
**Had a child in the household at any point post PhD to 12 years out.

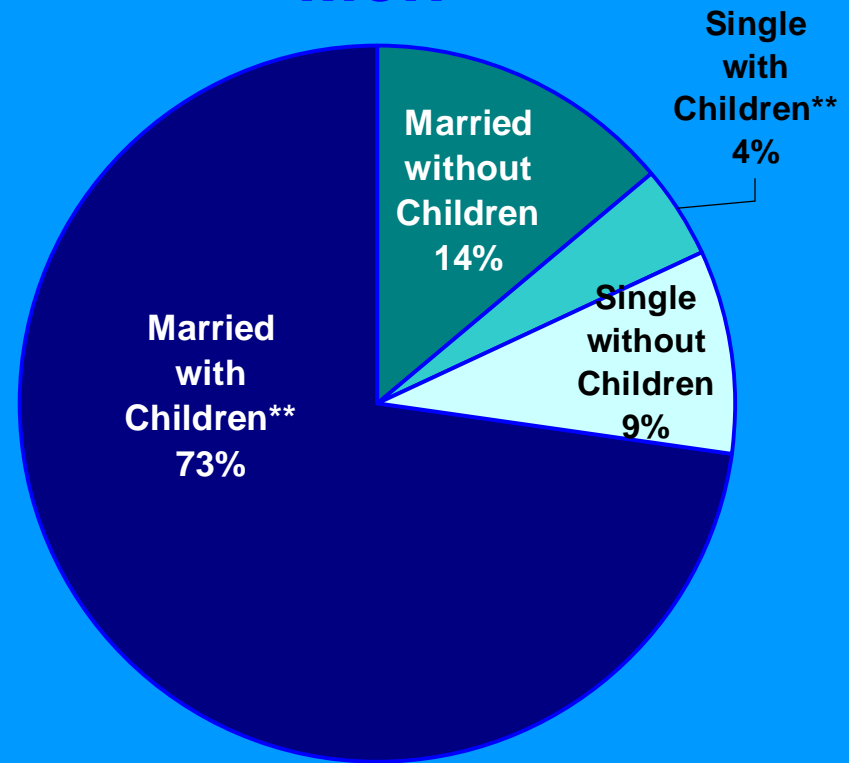
Family Status of Tenured Faculty in the Sciences*

Women



N=4,157

Men



N=19,767

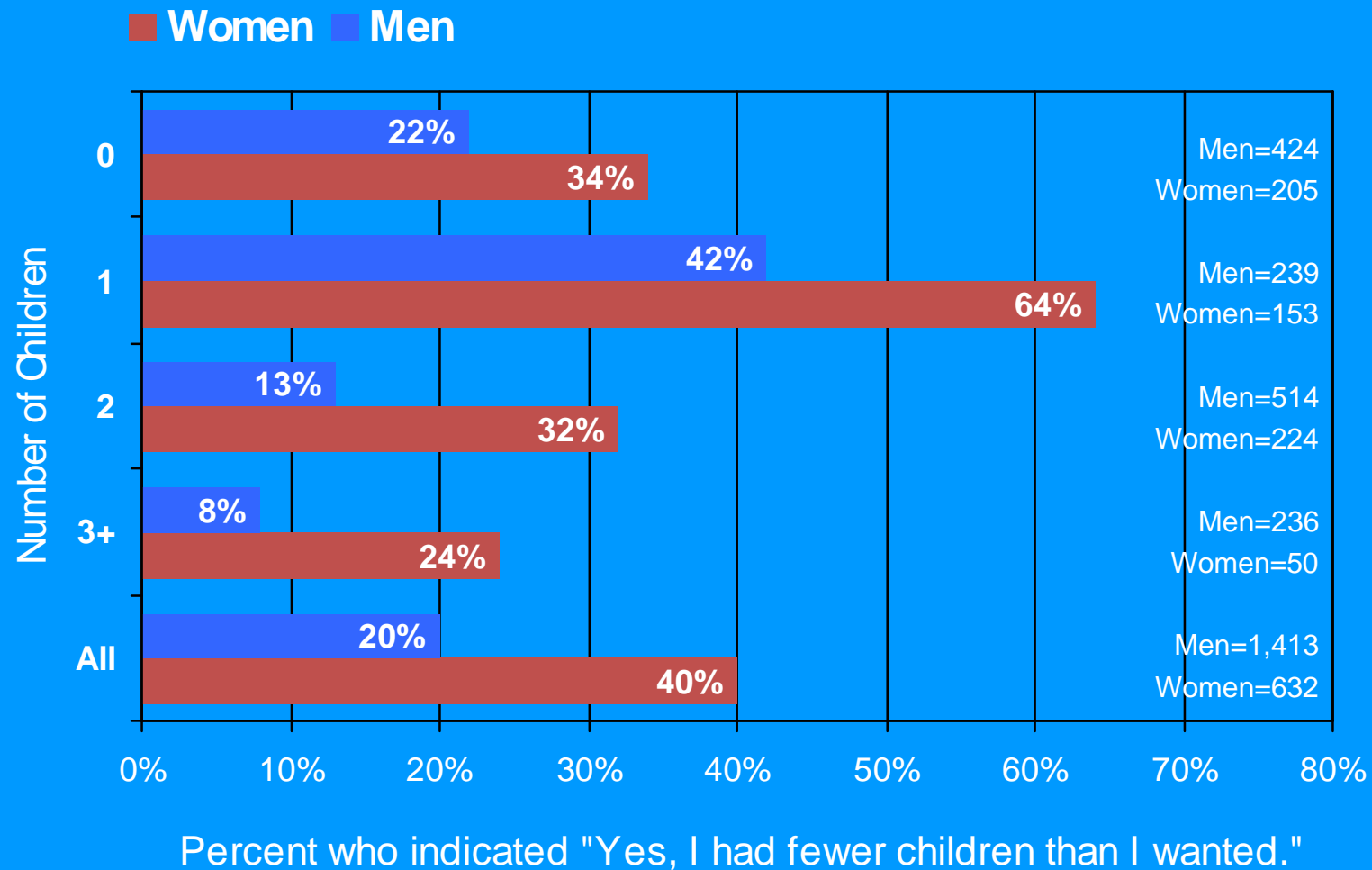
*PhDs from 1978-1984 Who Are Tenured 12 Years out from PhD in STEM, Bio. Sciences & Health Sc.

**Had a child in the household at any point post PhD to 12 years out.

Source: Marc Goulden, UCB, Survey of Doctorate Recipients. Sciences, 1979-1999,

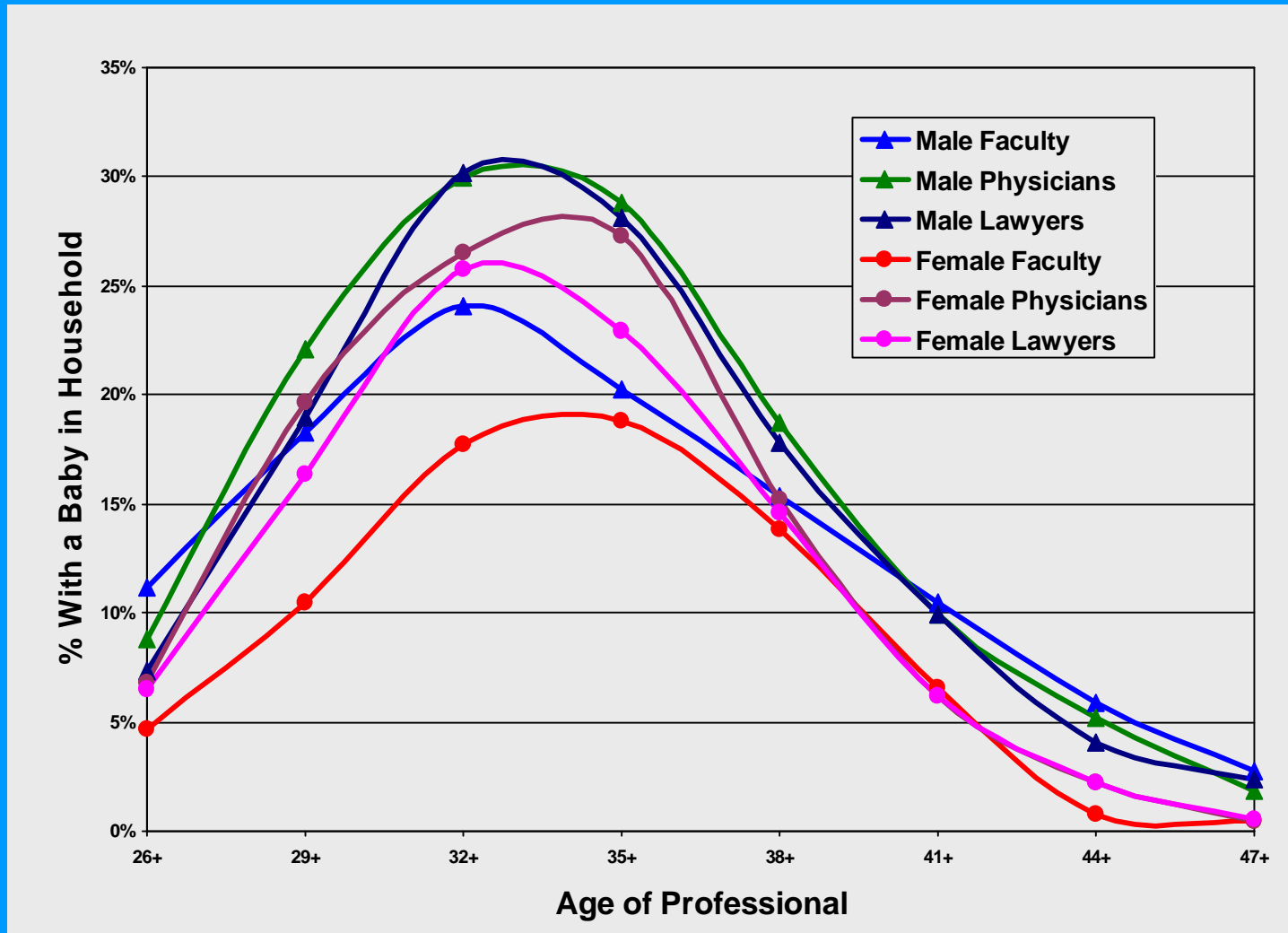
Having Fewer Children Than They Wanted:

UC Faculty, Ages 40-60



Source: Mason, Mary Ann, Angelica Stacy, and Marc Goulden. 2003. "The UC Faculty Work and Family Survey."
<http://ucfamilyedge.berkeley.edu>

Fast-Track Professionals* with Babies**

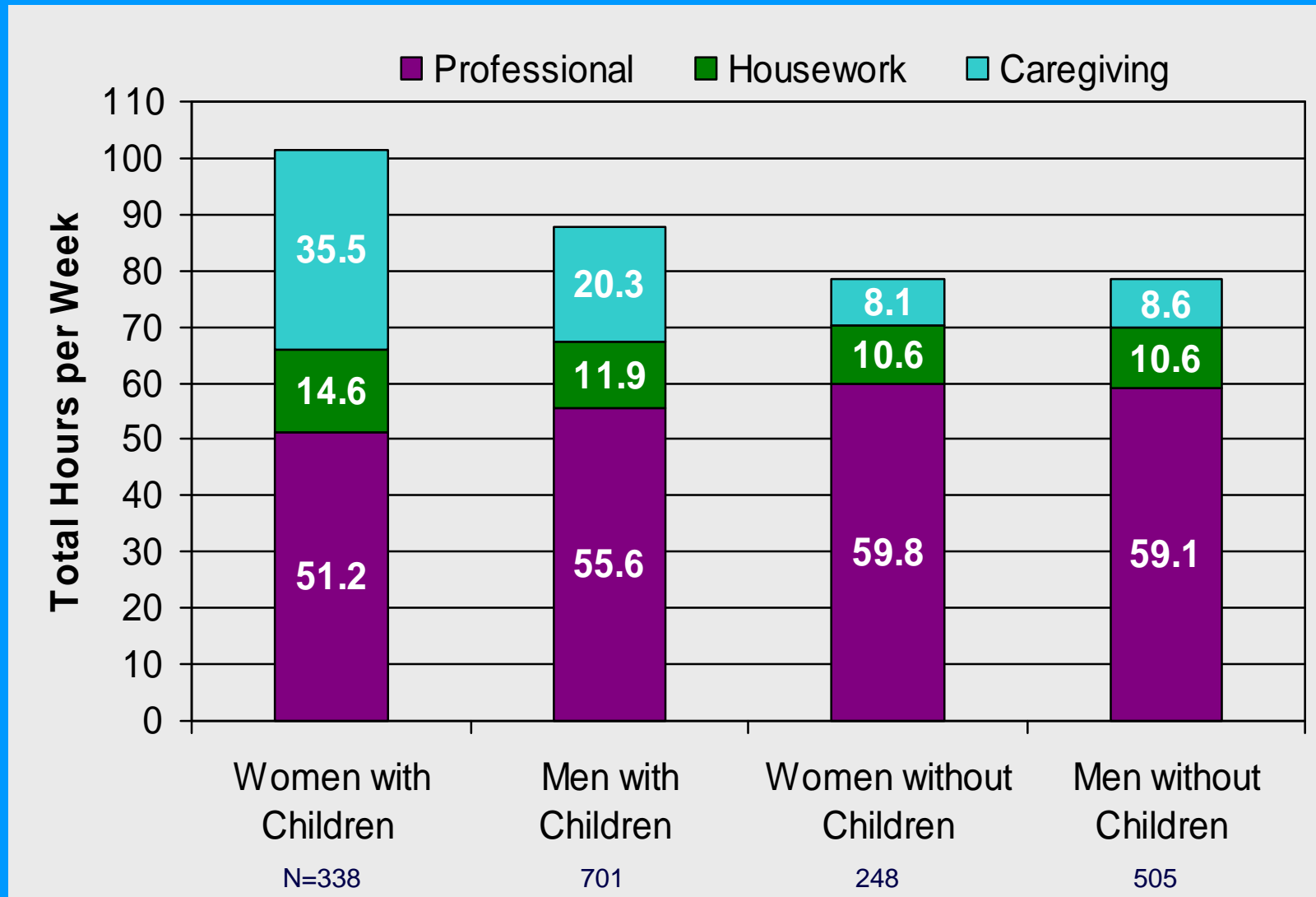


*Working 1 or more weekly hours.

**Children, Ages 0 or 1 in Household.

Source: Census 2000, Pums 5% sample; Mason, Mary Ann, Angelica Stacy, and Marc Goulden 2003.
"The UC Faculty Work and Family Survey." <http://ucfamilyedge.berkeley.edu>

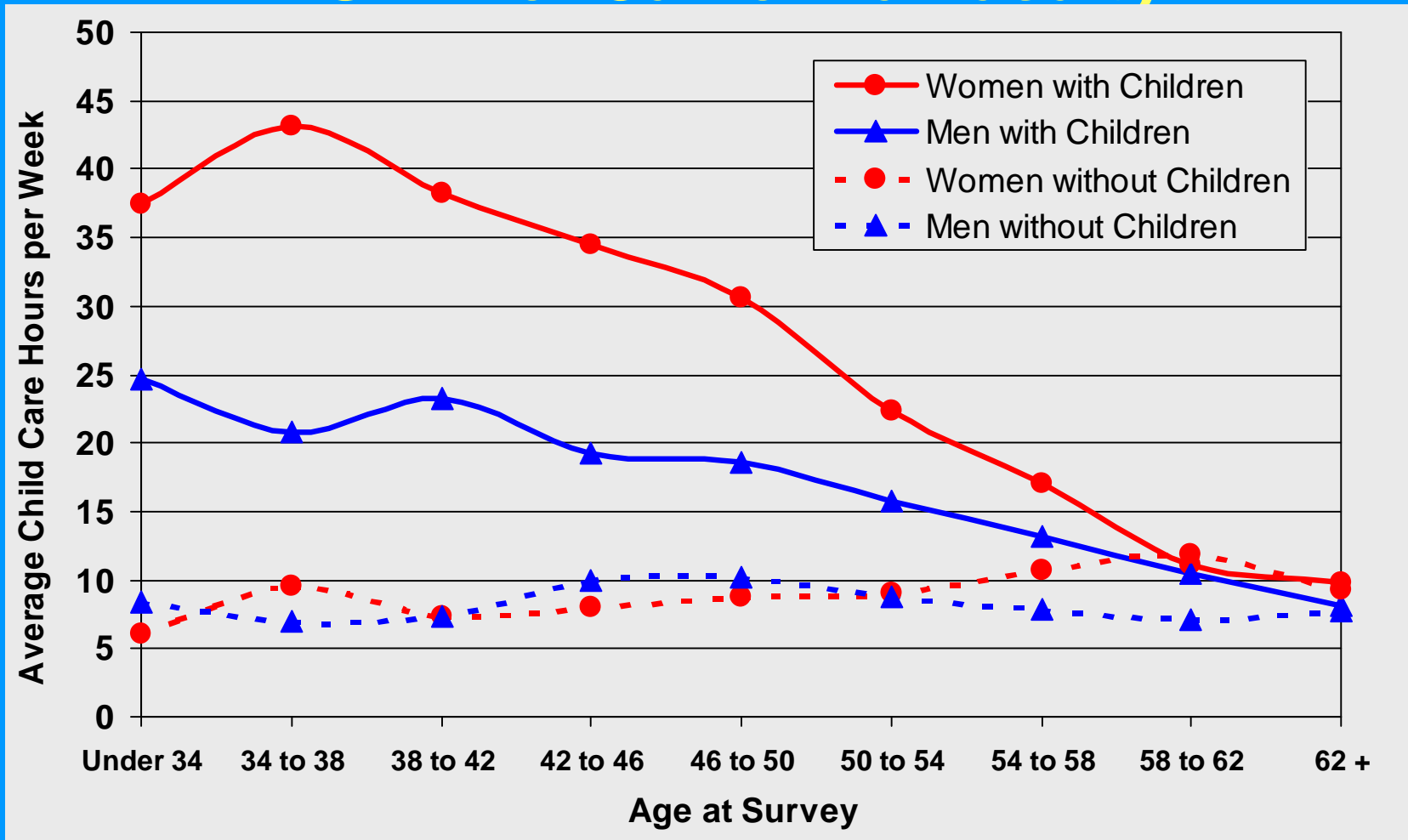
Everybody is Very Busy (UC Faculty, ages 30-50)



Source: Mason, Mary Ann, Angelica Stacy, and Marc Goulden. 2003. "The UC Faculty Work and Family Survey." <http://ucfamilyedge.berkeley.edu>

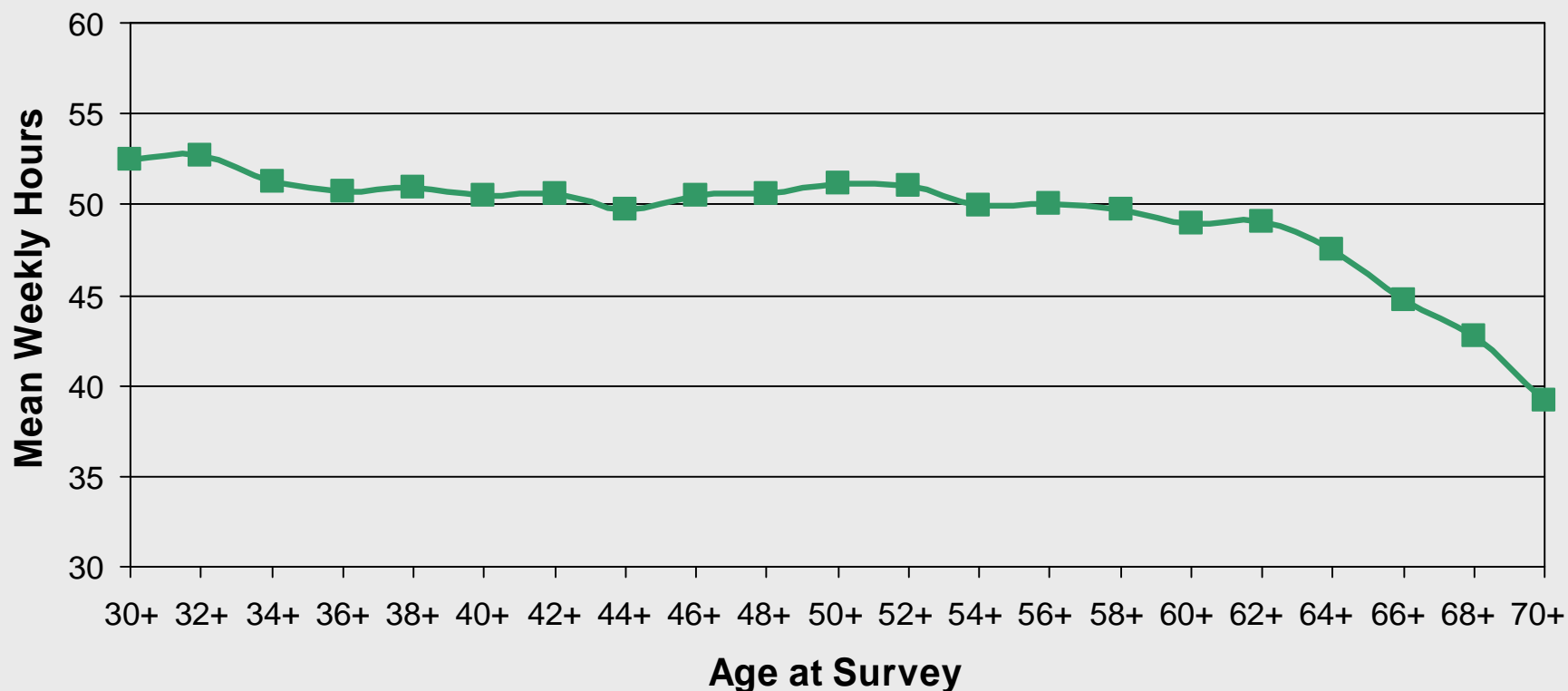
Child Care – Average Hours per Week

Univ. of California Faculty



Source: Mason, Mary Ann, Angelica Stacy, and Marc Goulden. 2003. "The UC Faculty Work and Family Survey."
<http://ucfamilyedge.berkeley.edu>

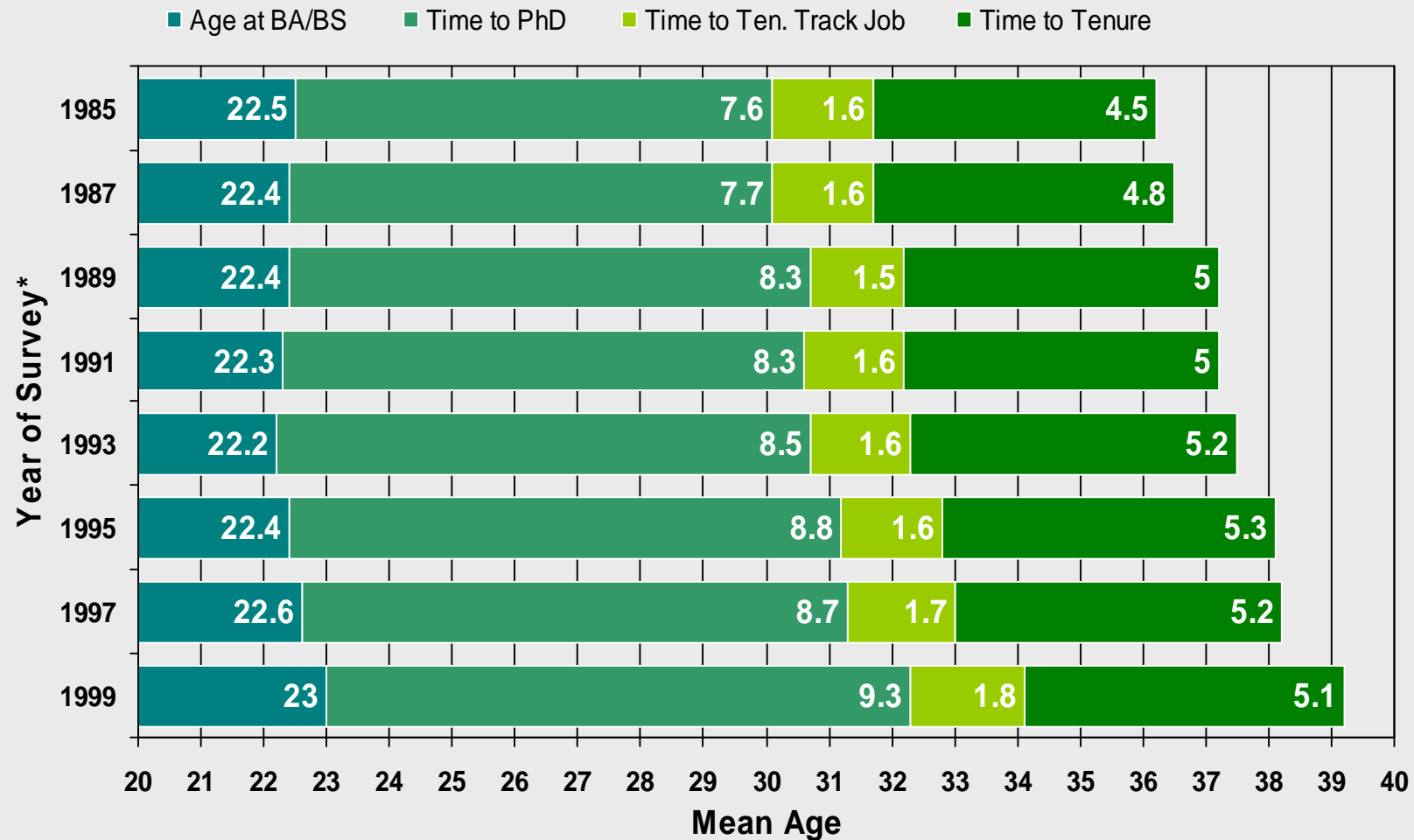
Mean Weekly Hours Worked by Science and Social Science Tenure-Track Faculty* in the U.S. - 1999



*Pre- and Post-Tenure

Source: SDR Sciences, 1999

Elongating Career Timelines (Mean Time-to-Events): U.S. Science & Social Sci. PhDs Who Achieve Tenure, 1985-1999*

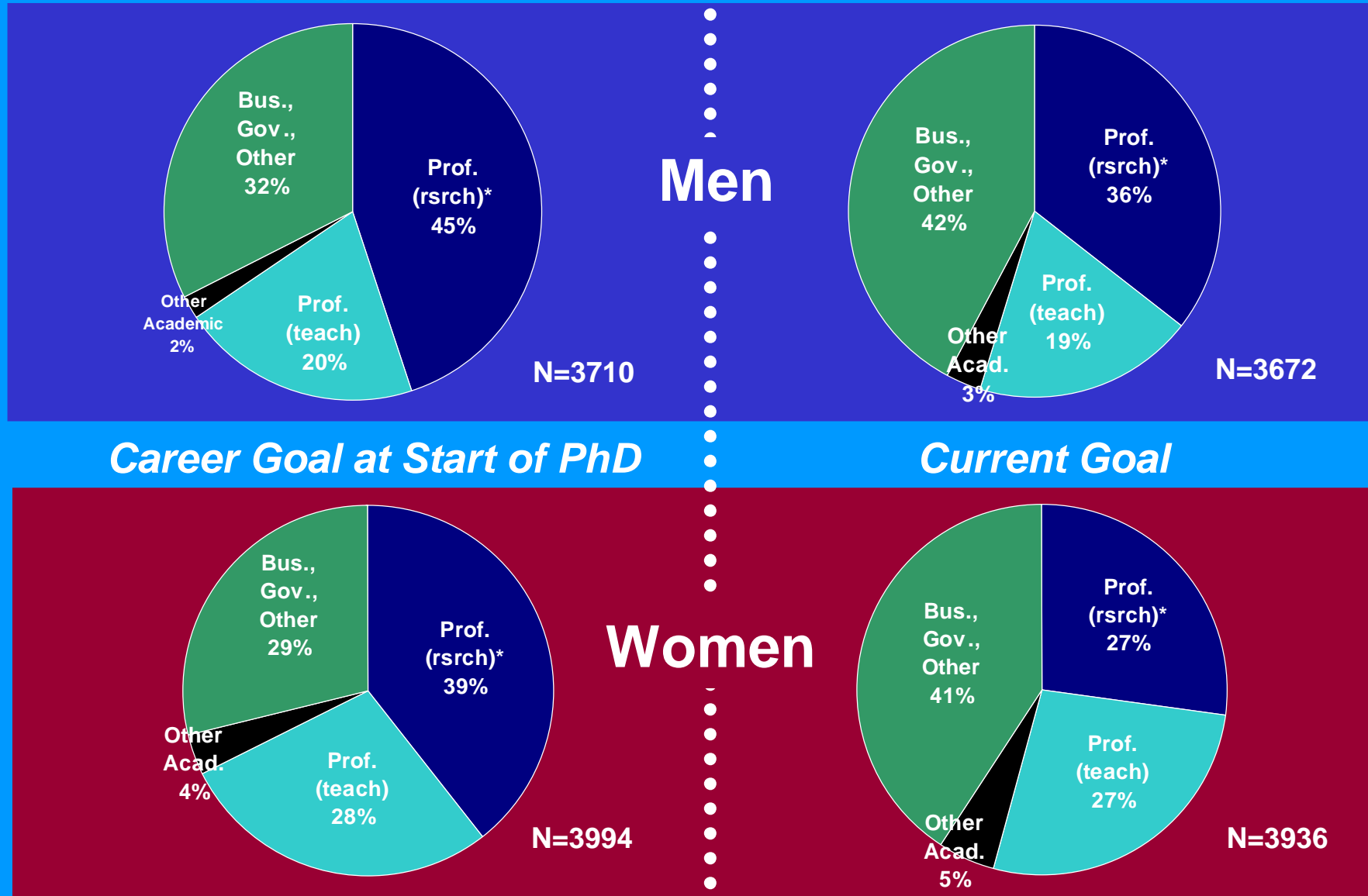


*Mean age calculations based on PhD Recipients given up to 14 years from PhD receipt to achieve tenure, e.g. 1999 includes SDR respondents who received their PhD from 1985-1987.

Source: NSF, SDR Sciences, 1973-1999.

Note: Use of NSF Data does not imply the endorsement of research methods or conclusions contained in this report.

Changing Career Goals - UC PhD Students



*Professor w. Research Emphasis

Source: Mason, Mary Ann and Marc Goulden. 2006. "UC Doctoral Student Career Life Survey."
<http://ucfamilyedge.berkeley.edu/grad%20life%20survey.html>

Reasons Most Commonly Cited by UC PhD Students for Shifting Career Goal away from Professor with Research Emphasis

	<i>% Citing Factor As "Very Important*" in Career Goal Shift</i>	Total	Men	Women
1	Negative experience as PhD student	45%	44%	46%
2	Other life interests	42%	35%	48%
3	Professional activities too time consuming	41%	35%	45%
4	Issues related to children	36%	21%	46%
5	Geographic location Issues	35%	28%	40%
6	Feelings of isolation/alienation as PhD student	33%	31%	35%
7	Bad job market	30%	29%	30%
8	Career advancement issues	30%	34%	27%
9	Job security	29%	29%	29%
10	Spouse/partner issues or desire to marry	27%	22%	32%
11	Monetary compensation (e.g. salary, ben.)	27%	31%	23%
12	Other career interests	25%	23%	27%

*Not applicable is excluded from analysis.

N=956 to 1201 402 to 529 550 to 666

Yellow shading indicates the group's response is significantly higher than the other group's response ($P < .01$).

Source: Mason, Mary Ann and Marc Goulden. 2006. "UC Doctoral Student Career Life Survey."
<http://ucfamilyedge.berkeley.edu/grad%20life%20survey.html>

Career Flexibility –

**Structurally Realigns the Academic
Career Path to Fit the Needs of an
Increasingly Diverse Work Force**

Career Flexibility Policies

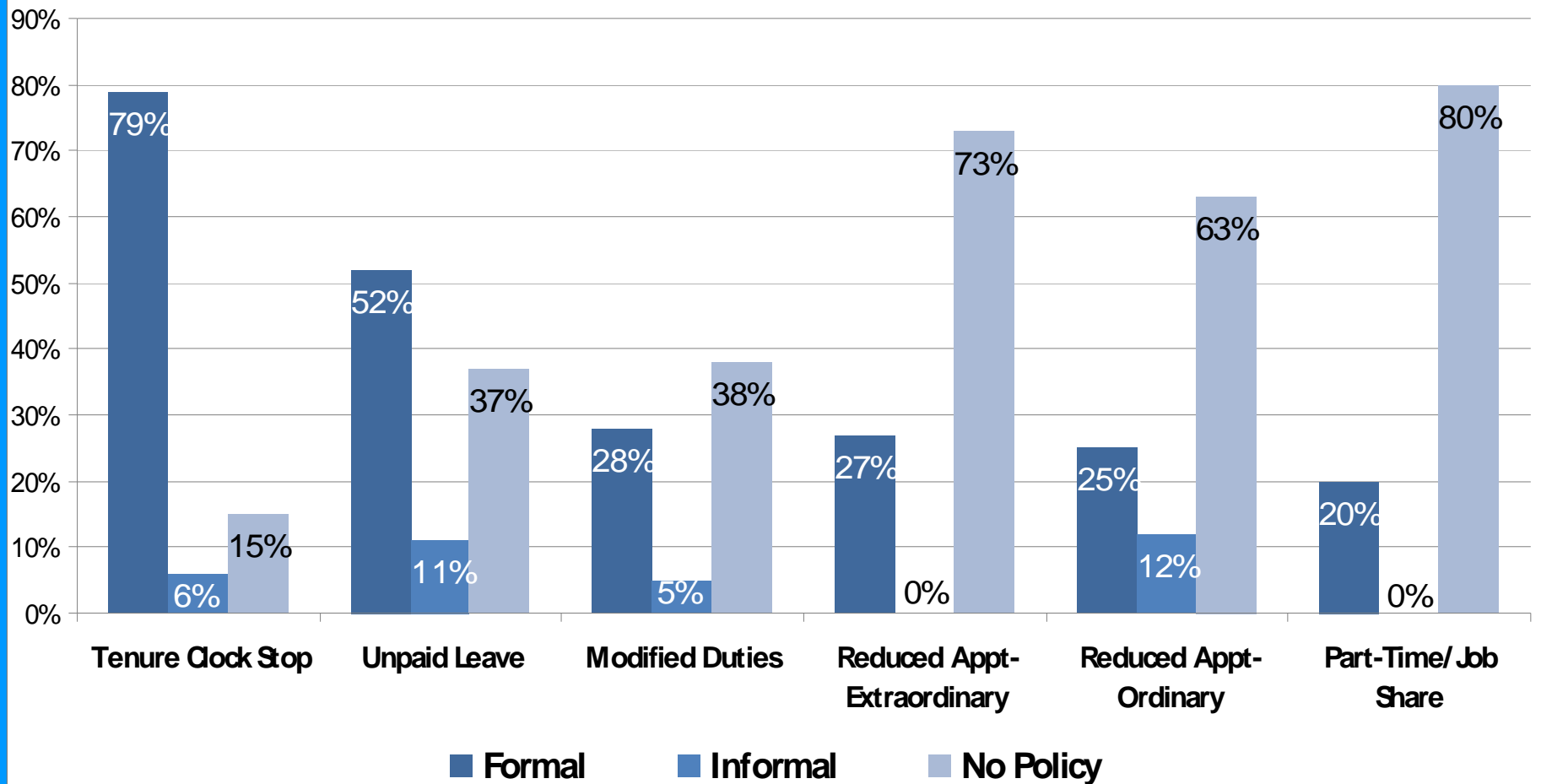
- Extended time to tenure – modified duties, tenure clock stoppage
- On and off ramps through leave policies
- Slow-down periods – including reduced appointments
- Delayed entry – including practices to foster later than usual career starts
- Phased retirement

Existing Career Flexibility Policies

Type of Institution	Average #
Research Universities	3
Doctoral & Masters Granting Institutions	1
Baccalaureate Degree Granting Institutions	1
Associate Degree Granting Institutions	<1

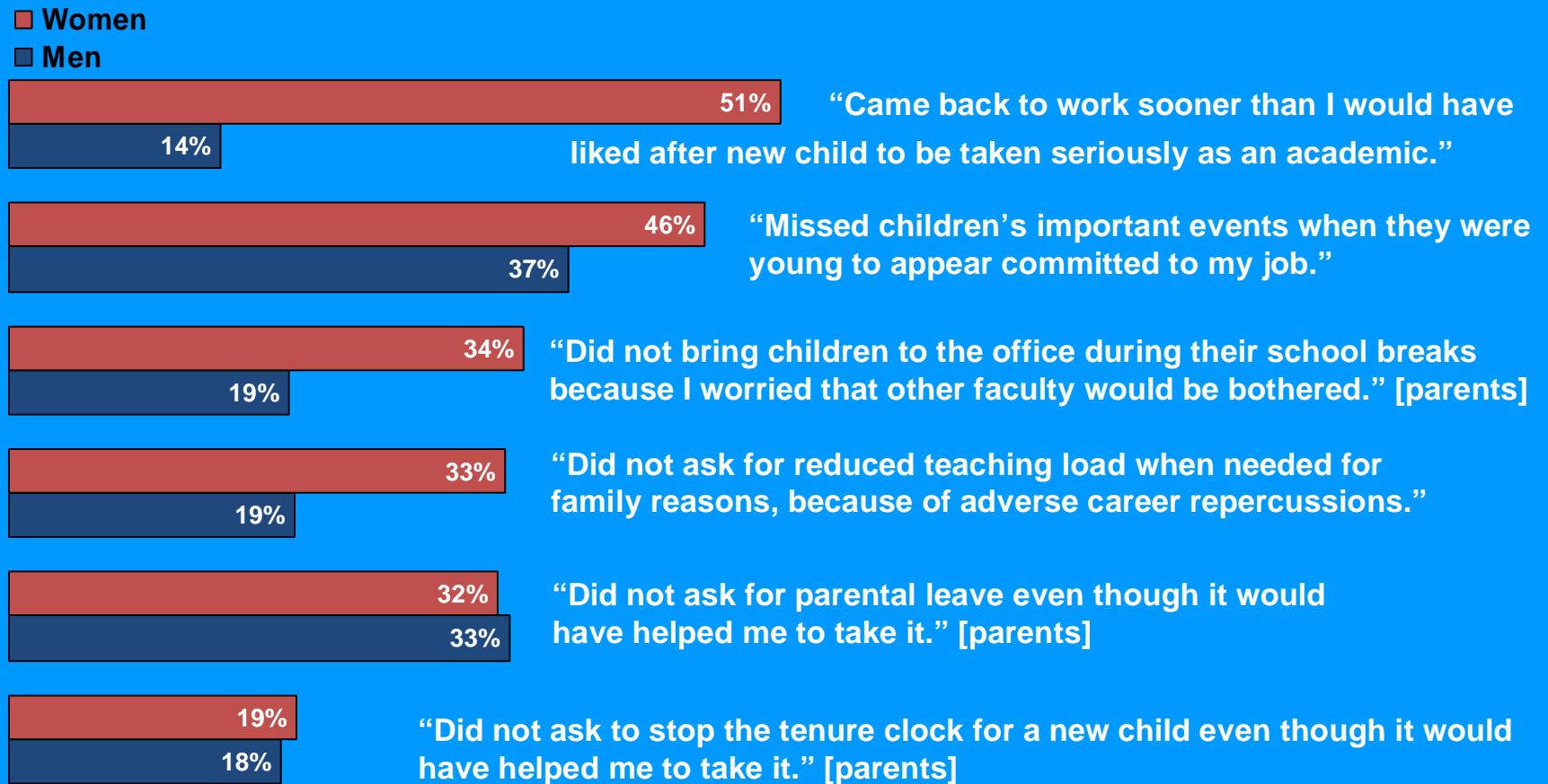
Source: University of Michigan, Center for the Education of Women

Type of Work/Family Policies at Research Universities



Source: University of Michigan, Center for the Education of Women

Fear of Bias Prevents Use of Policies and Impacts Families



Source: Drago, R., Colbeck, C. (2004). "Family-Work Policies & Practices: Results from the Mapping Project".

Getting to the Next Stage: Formal Faculty Policies Not Enough

- Culture
- Programmatic Change
- Early Career Interventions

Changing the Culture

- Internal Assessment – baseline data
- External Assessment - benchmarking
- Ongoing monitoring of progress
- Engagement of leadership
- Training of key gatekeepers - chairs
- Communications campaign
- Transparency
- Commitment of central funds
- Level the playing field
- Building the business case

Promising Programmatic Change

- University of Florida
- Lehigh University
- Duke University
- Iowa State

Early Intervention: Graduate Students

- Assessment of work-family issues
- Paid family leave
- Part-time post doc appointments
- University & federal grant policies
- Delayed entry/alternate entry points
 - non-tenure lines (research or teaching)
 - re-tooling and re-entry fellowships

Princeton University – Family Friendly Policies for Graduate Students

- **Three months of paid maternity leave**
- **Extensions of academic deadlines and fellowships**
(leave time does not count against any limits on time to receive financial support or finish degrees)
- **Child care support of up to \$5,000 a year per child (up to 2 children)**
- **Back-up Child Care Funds**
when regular child care is not available
- **Travel payments for academic conferences includes child care**
(either at home or on site - when needed)
- **Mortgage assistance** (to reduce both points and closing costs for graduate students purchasing real estate anywhere in the country)

Achieving the Fit between Academic Careers and Family

Goal: Offer women and men at all career stages genuine choices regarding children and marriage

Method: Design and implement policies and practices to insure professional gains are not offset by familial losses

Challenge: Change the culture

Alfred P. Sloan Awards for Faculty Career Flexibility

- Recognizes leadership and innovation in career flexibility
- In 3rd Round:
 - § Round 1 – Research Universities
 - § Round 2 – Master's Universities
 - § Round 3 - Liberal Arts Colleges (in progress)
- Up to 6 Awards in each round
- Awards range from \$200,000 to \$250,000 each
- Award monies used to accelerate progress