

DO BABIES MATTER?

Closing the Baby Gap

Mary Ann Mason

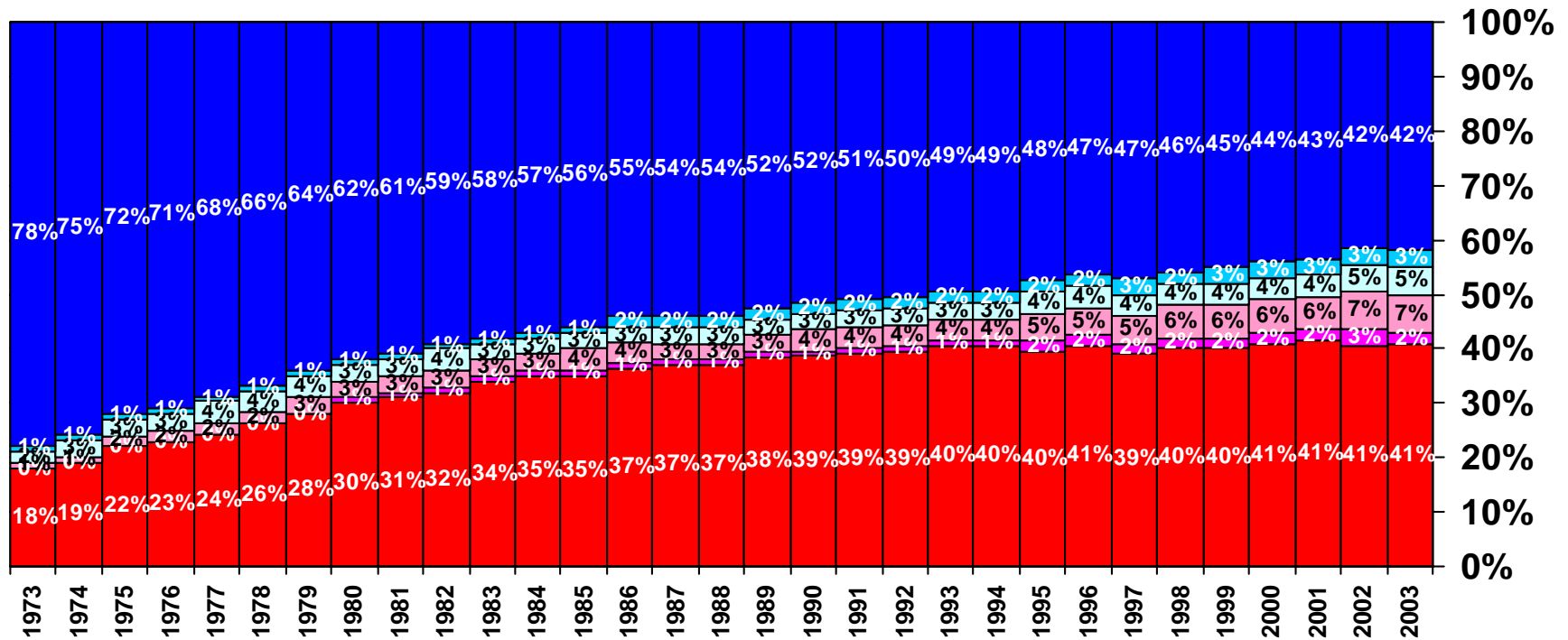
**Dean of the Graduate Division
University of California, Berkeley**

April 12, 2007

**College of Engineering
Graduate Women of Etcheverry (GWE)
and The Julia Morgan Engineering Program
Speakers Series**

“Plugging the Leaky Pipeline: Keeping Women in Engineering”

PhD Recipients from U.S. Universities (U.S. Citizens only)



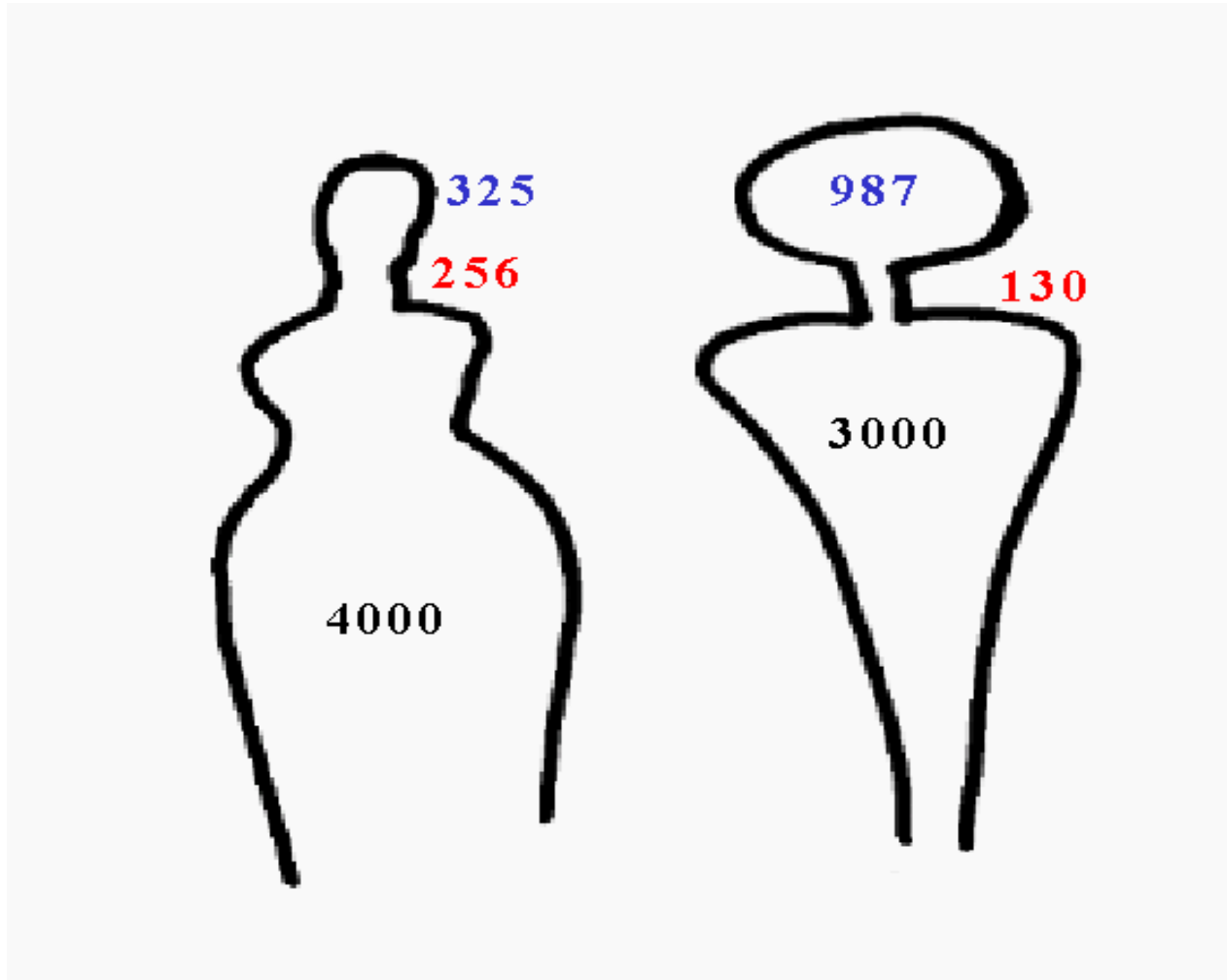
Source: NSF, Survey of Earned Doctorates, taken from Webcaspar.

Do Babies Matter project funded by the Alfred P. Sloan Foundation.

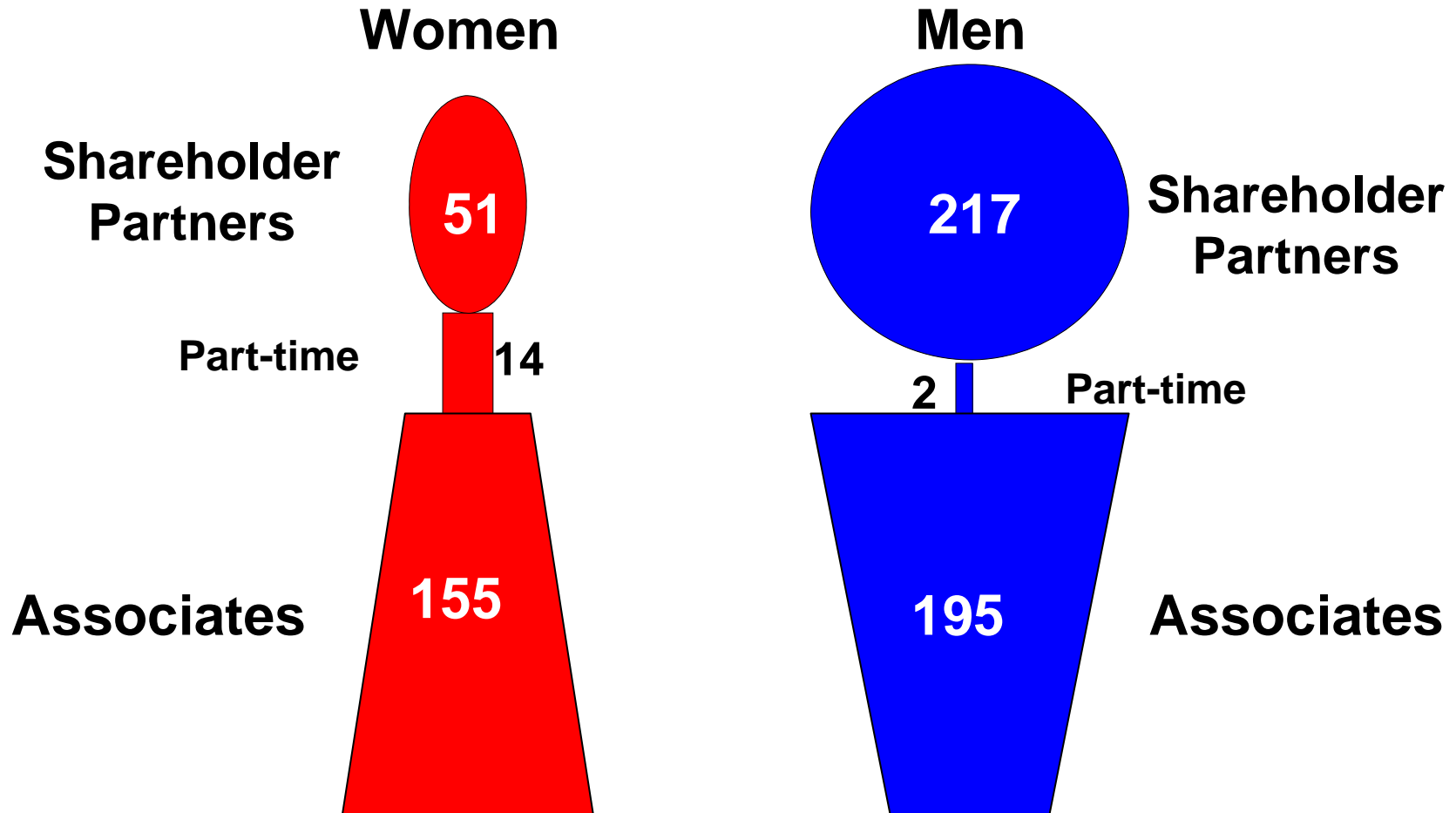
Mary Ann Mason, UC Berkeley; Marc Goulden, UC Berkeley; Nick Wolfinger, University of Utah

University of California, Berkeley

(2002)



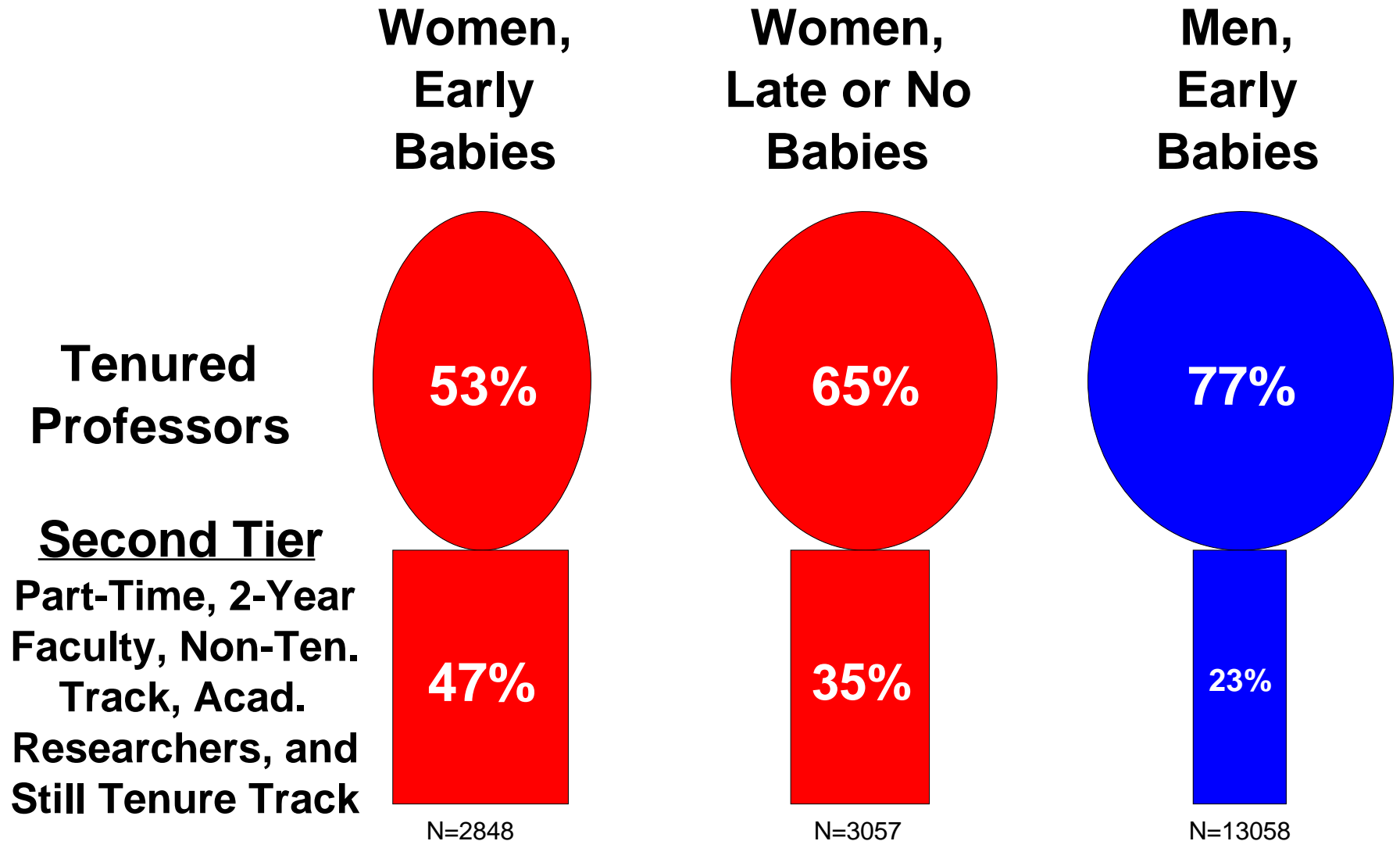
Large San Francisco Law Firm



Survey of Doctorate Recipients (SDR)

- **A national biennial longitudinal data set of PhD recipients' post-degree employment experiences** funded by the NSF and others, 1973 to present (NEH funded the Humanities, 1977-1995).
- Includes **a ~10% sub-sample of PhD recipients** drawn from the Survey of Earned Doctorates (SED) each year -- and individuals are resurveyed until they reach age 76, leave the country, or refuse to participate (over 160,000 individuals have participated).
- **Response data is weighted** based on sampling design and re-weighted each survey cycle, based on attrition (e.g. gender, ethnicity) to reflect US PhD population.
- Starting in 1979 and 1981, respondents were asked about their **marital status (1979)** and the **number of children (1981)** living in their household (under 6, 6-18, etc.).
- Arguably the **best employment dataset** in the country.

Heads and Necks of Science PhD Recipients*



*PhDs from 1978-1984 Who Are Working in Academia 12 to 14 Years Out from PhD

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

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

Heads and Necks of Humanities and Social Science PhDs*

**Women,
Early
Babies**

**Women,
Late or No
Babies**

**Men,
Early
Babies**

**Tenured
Professors**

58%

71%

78%

**Second Tier
Part-Time, 2-Year
Faculty, Non-Ten.
Track, Acad.
Researchers, and
Still Tenure Track**

42%

29%

**22
%**

N=2973

N=4155

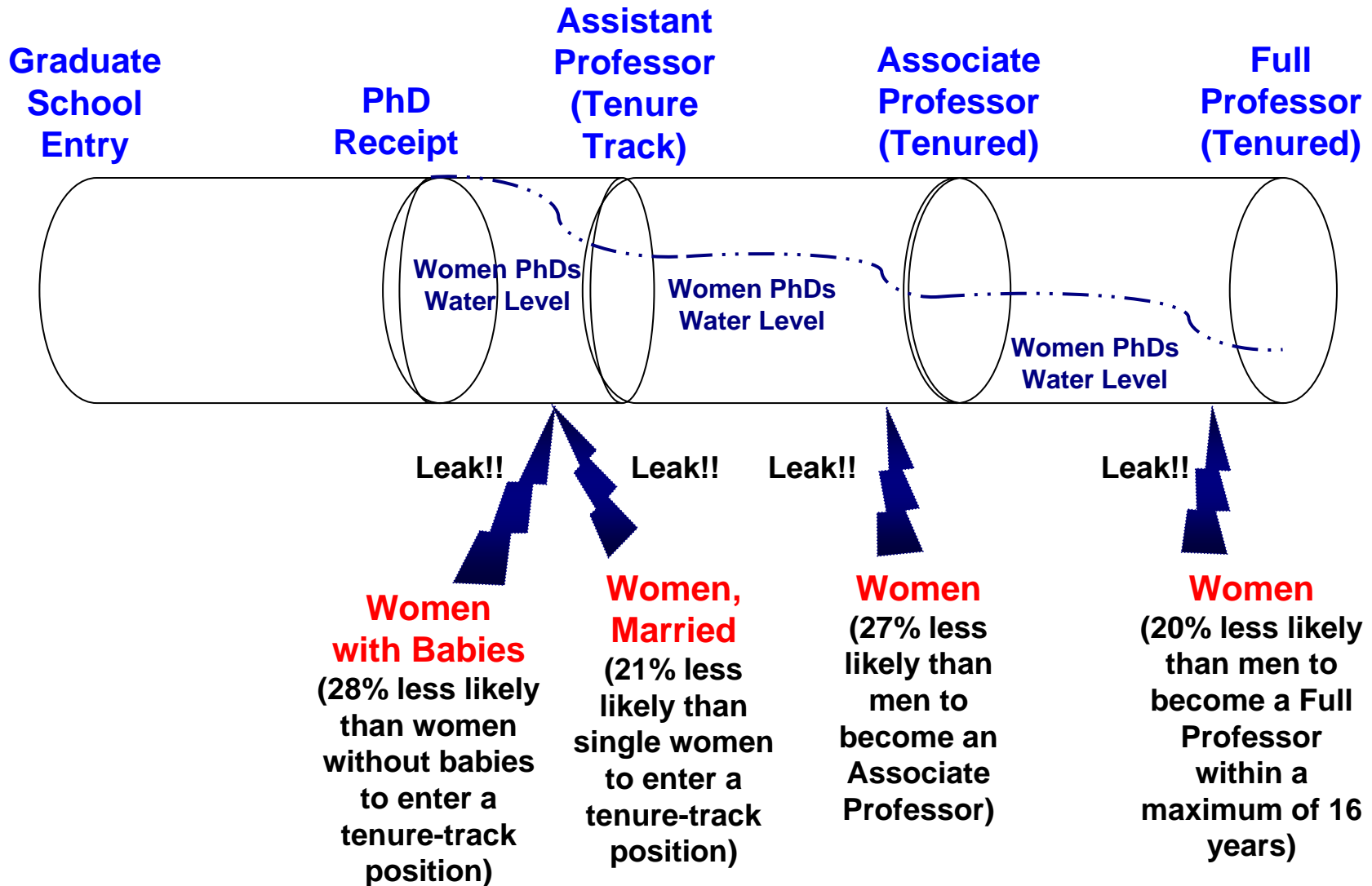
N=7452

***PhDs from 1978-1984 Who Are Working in Academia 12 to 14 Years Out from PhD**

Source: Survey of Doctorate Recipients. Sciences and Humanities, 1979-1995.

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

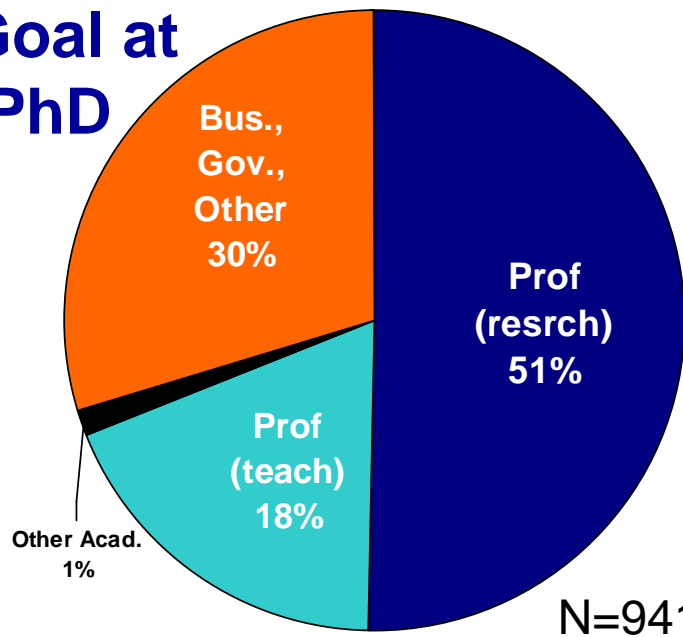
Leaks in the Academic Pipeline for Women*



* Preliminary results 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.

Career Goal at Start of PhD

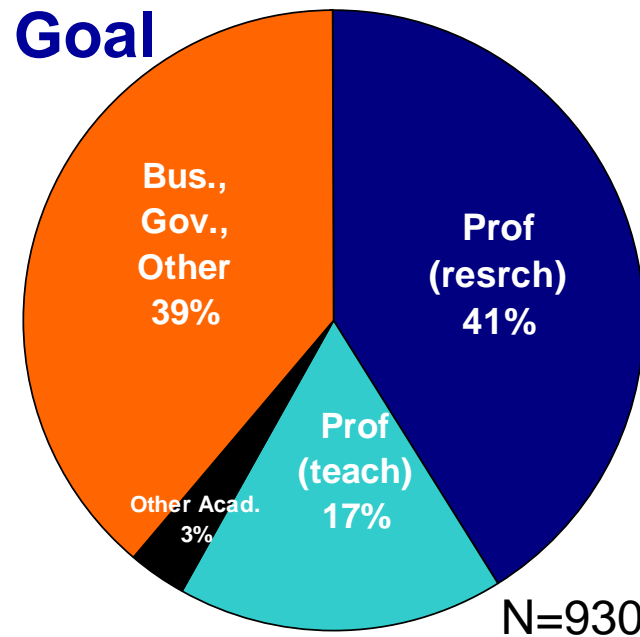
Men



N=941

Current Goal

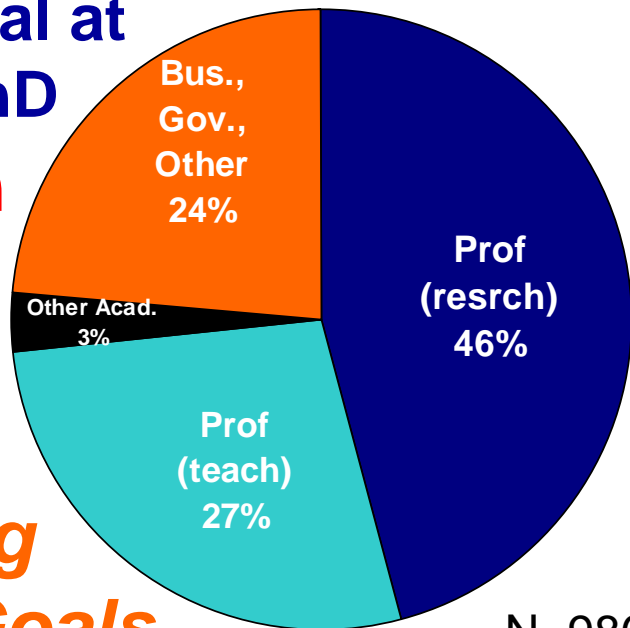
Men



N=930

Career Goal at Start of PhD

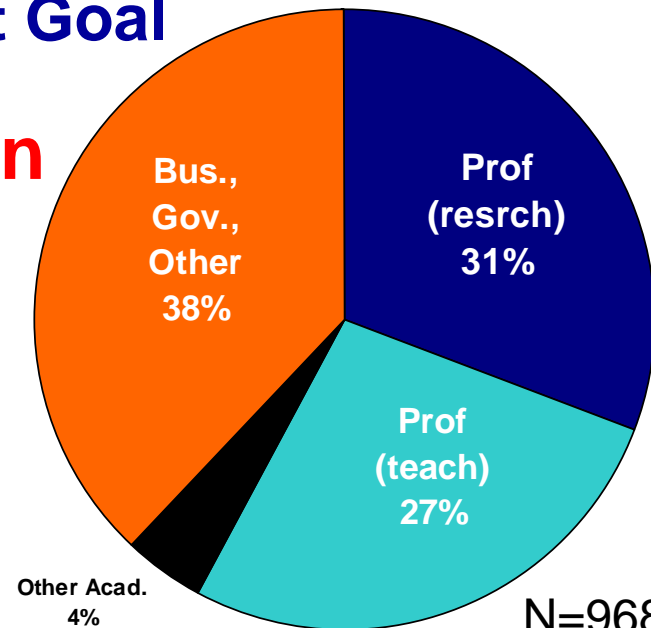
Women



N=986

Current Goal

Women

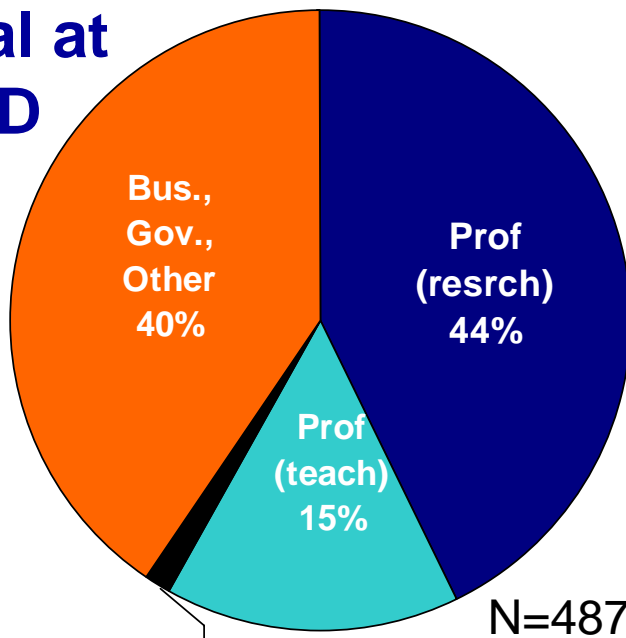


N=968

Changing Career Goals

Career Goal at Start of PhD

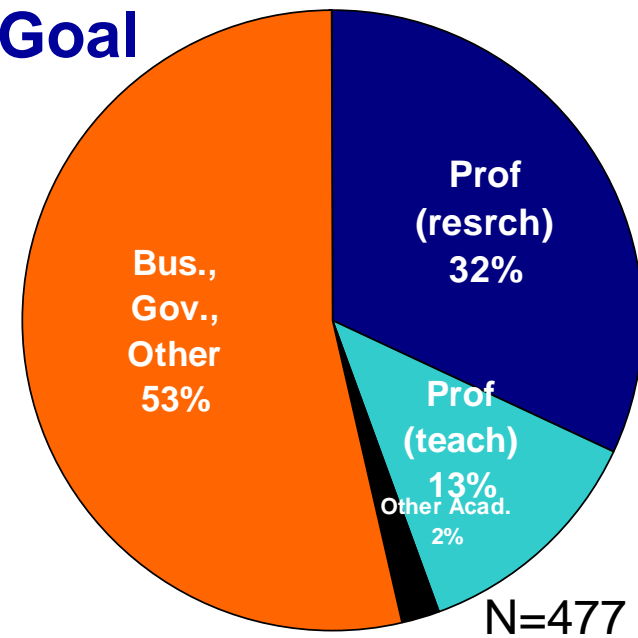
Men



N=487

Current Goal

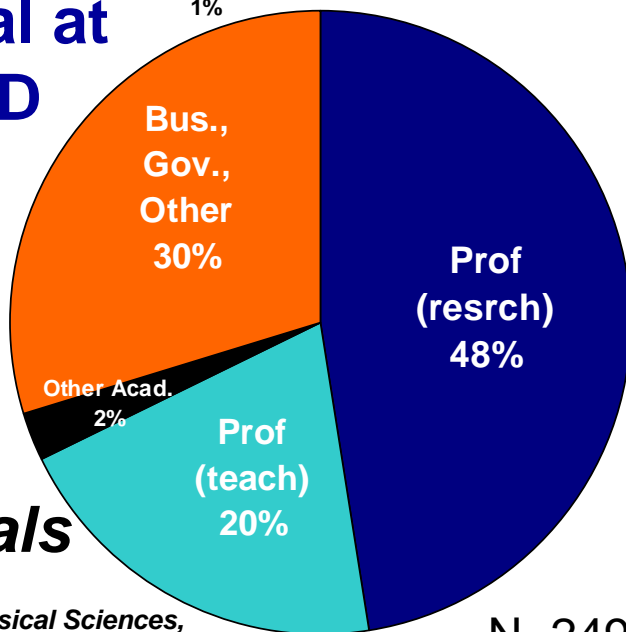
Men



N=477

Career Goal at Start of PhD

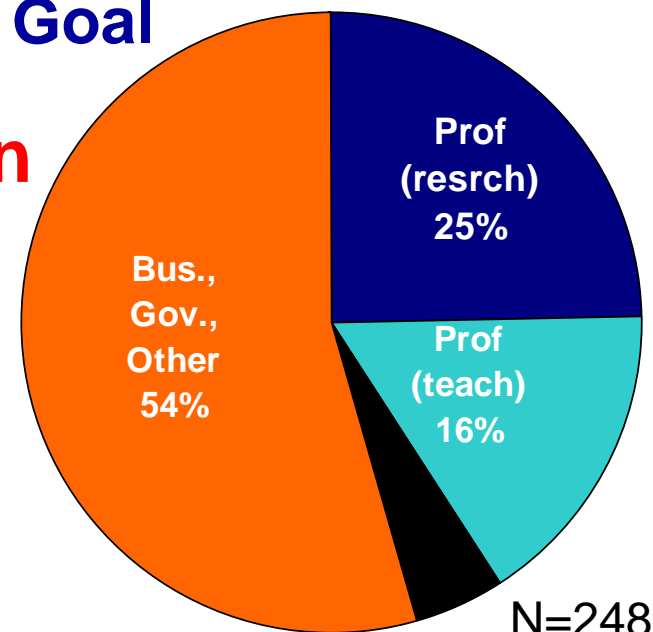
Women



N=249

Current Goal

Women



N=248

Changing Career Goals

– **PTEM** (Physical Sciences, Technology, Engineering, Mathematics)

Reasons Most Commonly Cited by UCB 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	48%	50%	46%
2	Other life interests	41%	39%	41%
3	Feelings of isolation/alienation as PhD student	37%	35%	39%
4	Professional activ. <u>too</u> time consuming	37%	31%	41%
5	Issues related to children	31%	16%	42%
6	Geographic location Issues	29%	24%	32%
7	Issues related to spouse/partner	27%	19%	32%
8	Lack of encouragement/mentor	25%	28%	22%
9	Job security	24%	28%	21%
10	Bad job market	23%	25%	22%
11	Career advancement issues	23%	26%	21%
12	Other career interests	22%	27%	19%

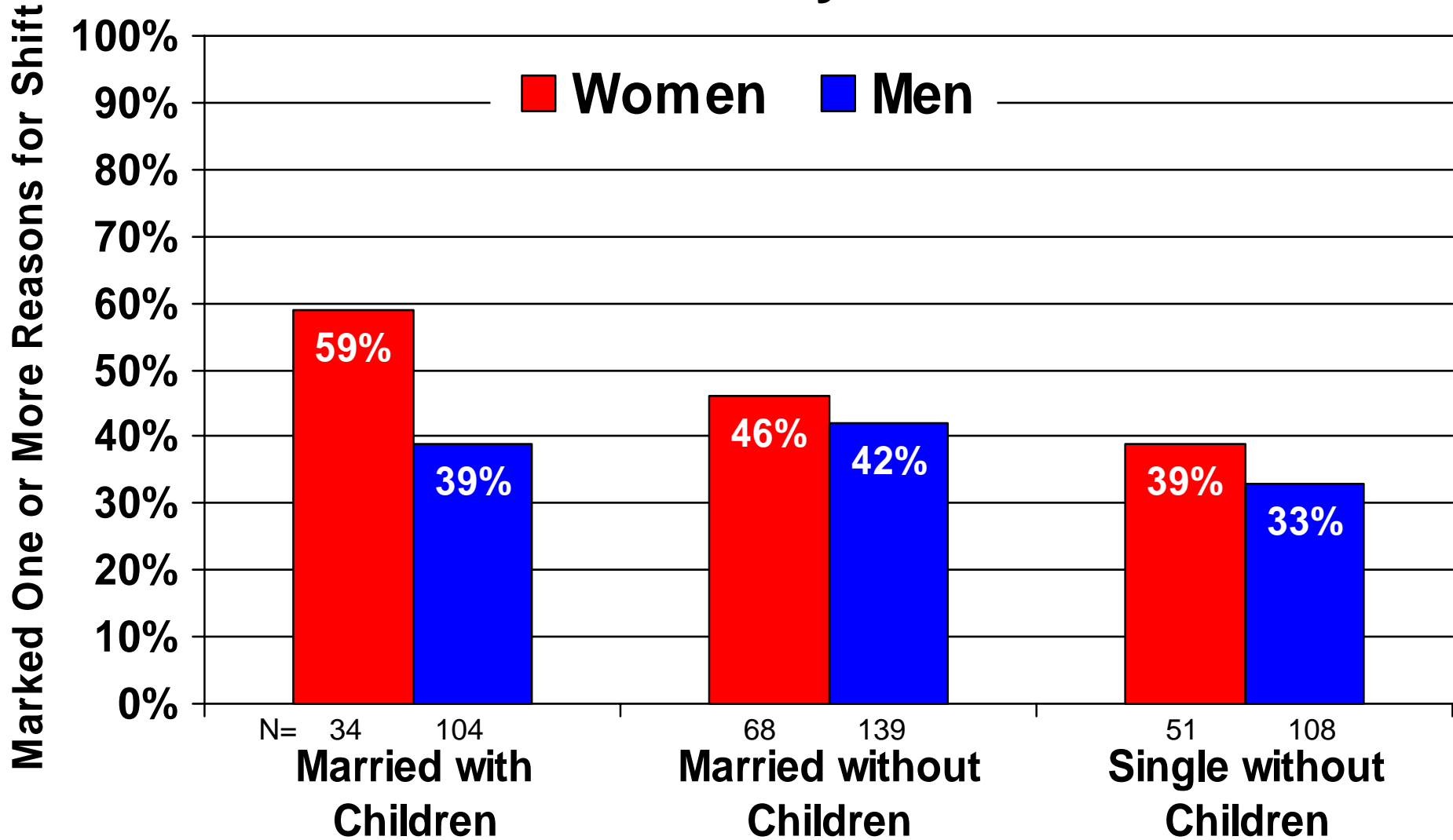
N=262 to 313 107 to 134 154 to 177

Yellow shading indicates the group's response is significantly higher than the other group's response (P<.05).

Shifting Goal away from Professor with Research Emphasis: Selected Quality-of-Life Related Explanations by UCB Men & Women Doctoral Students

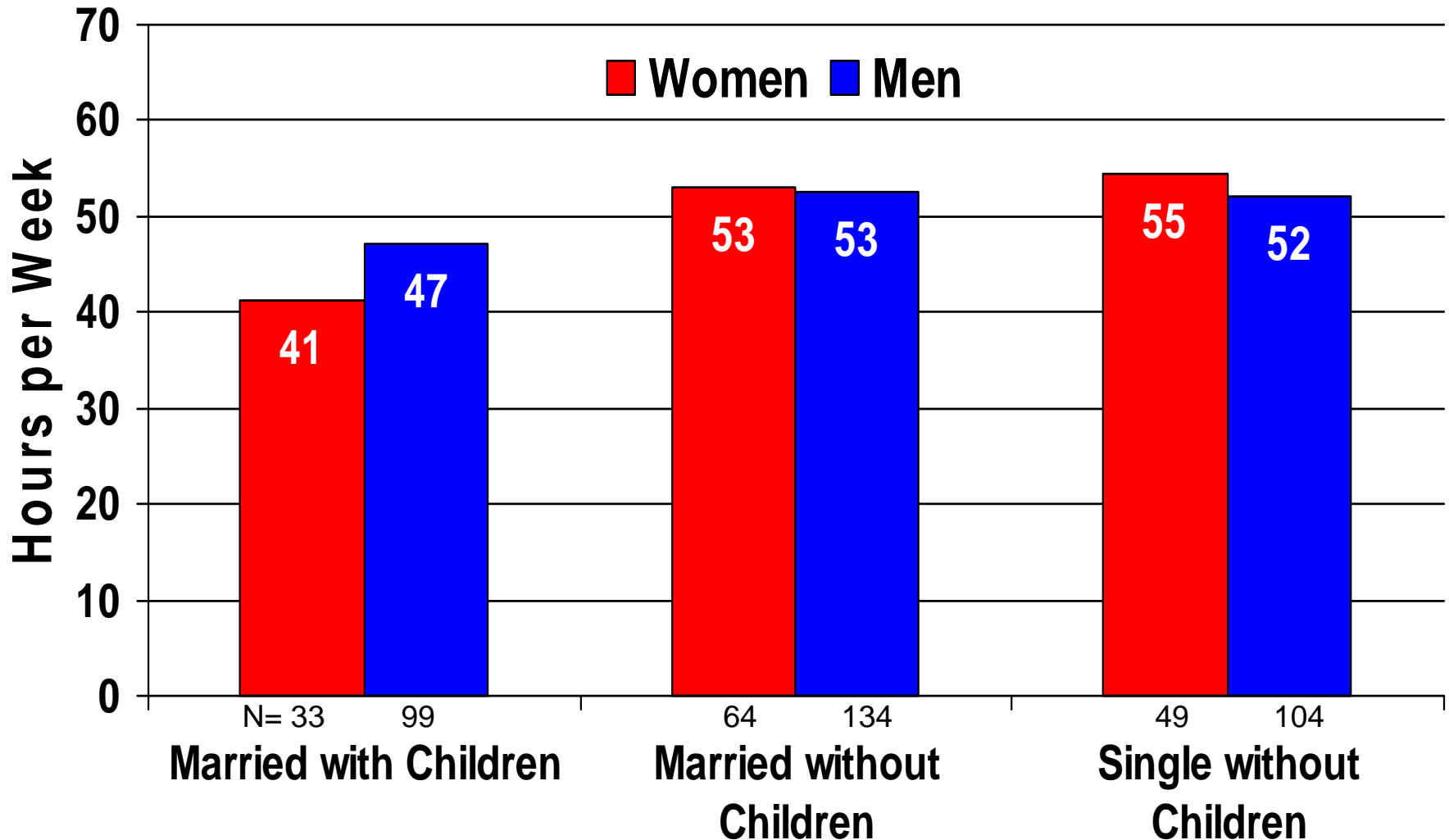
- ***“I feel unwilling to sacrifice a healthy family life and satisfying personal life to succeed in academics, and thus industrial options have become more appealing.”***
- ***“Fed up with narrow-mindedness of supposedly intelligent people who are largely workaholic and expect others to be so as well.”***
- ***“I look at the lives of the professors I see every day, and I want to emulate none of them.”***
- ***“I really want to be a mom. This seems like an extremely difficult goal to align with the goal of being a faculty member at a top university in engineering.”***
- ***“Since beginning my doctoral work, I have become convinced that very few, if any, female professors are able to have stable, fulfilling family lives of the sort that I wish for (a stable marriage and children).”***
- ***“Academia is not very supportive of women. There are challenges at every step of the way in terms of having to make choices. I want to be able to have a family, have children and enjoy being a mother and wife which are close to impossible when one chooses academia. The clock is ticking and it does not stop for anything or anyone.”***

Percentage of UCB Postdocs Who Indicated a Career Goal Shift Away from Academia*

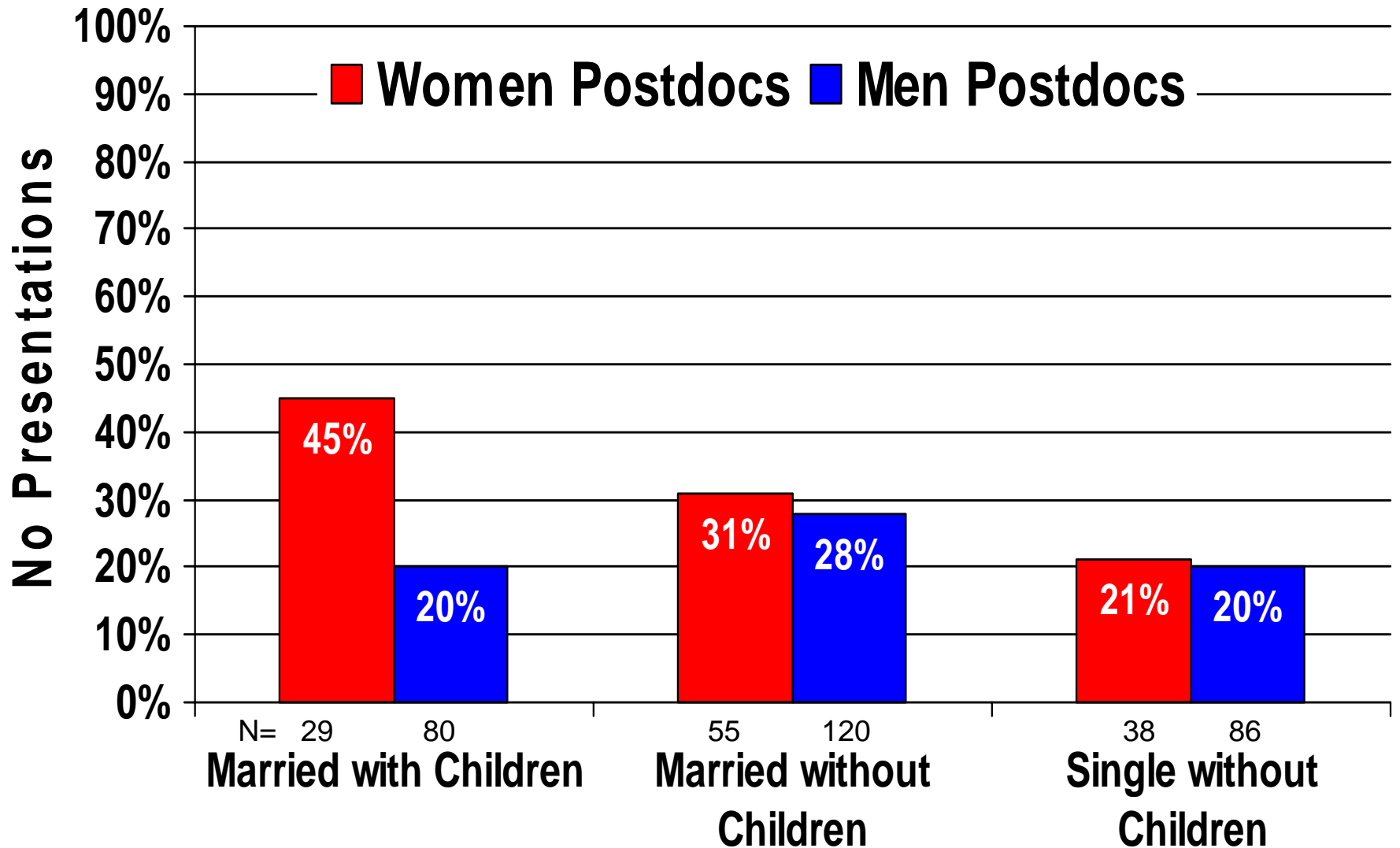


*Among all survey participants.

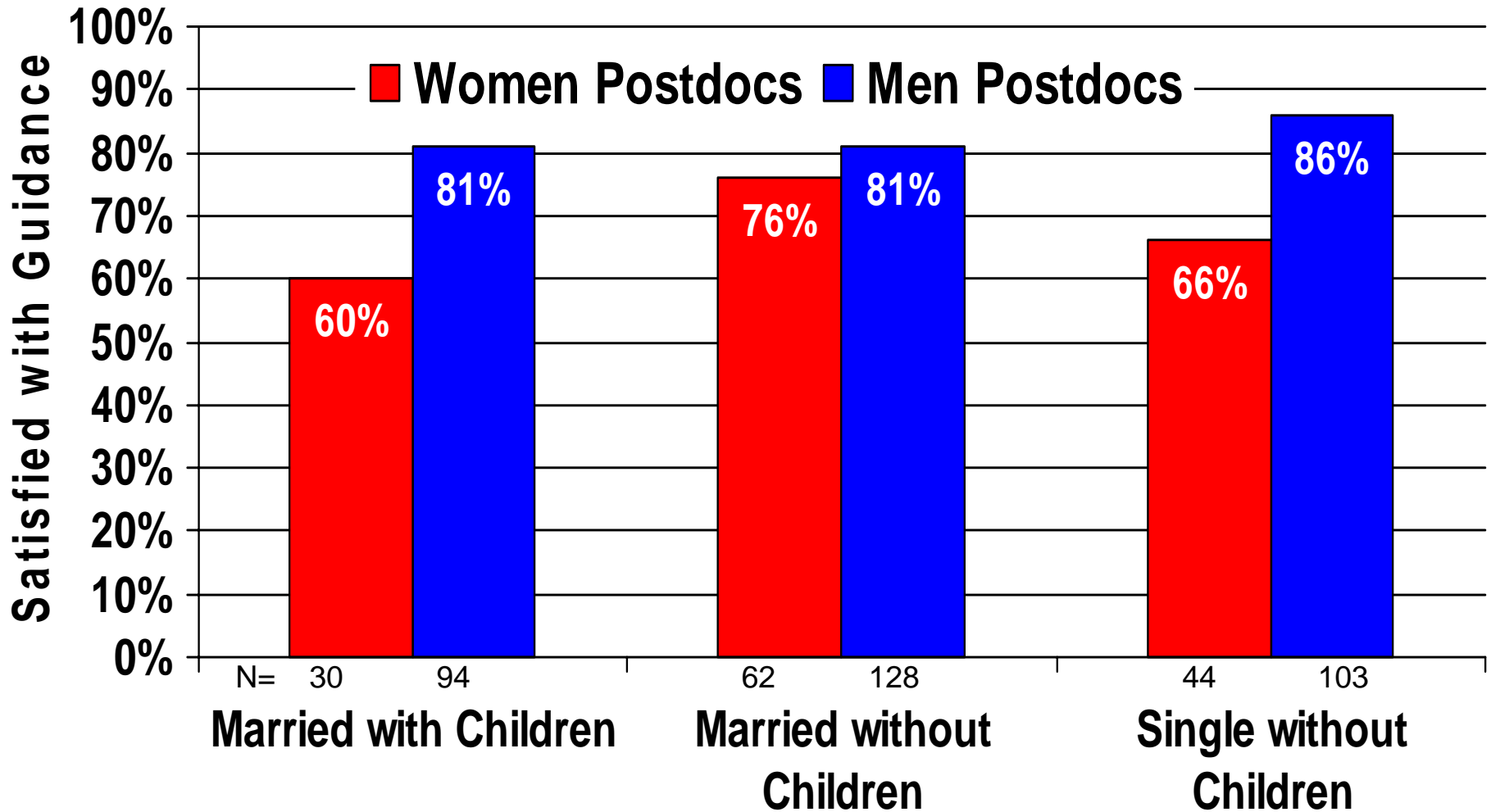
Average Number of Hours Worked Each Week as a Postdoc



No Presentations at Conferences in the Last Year



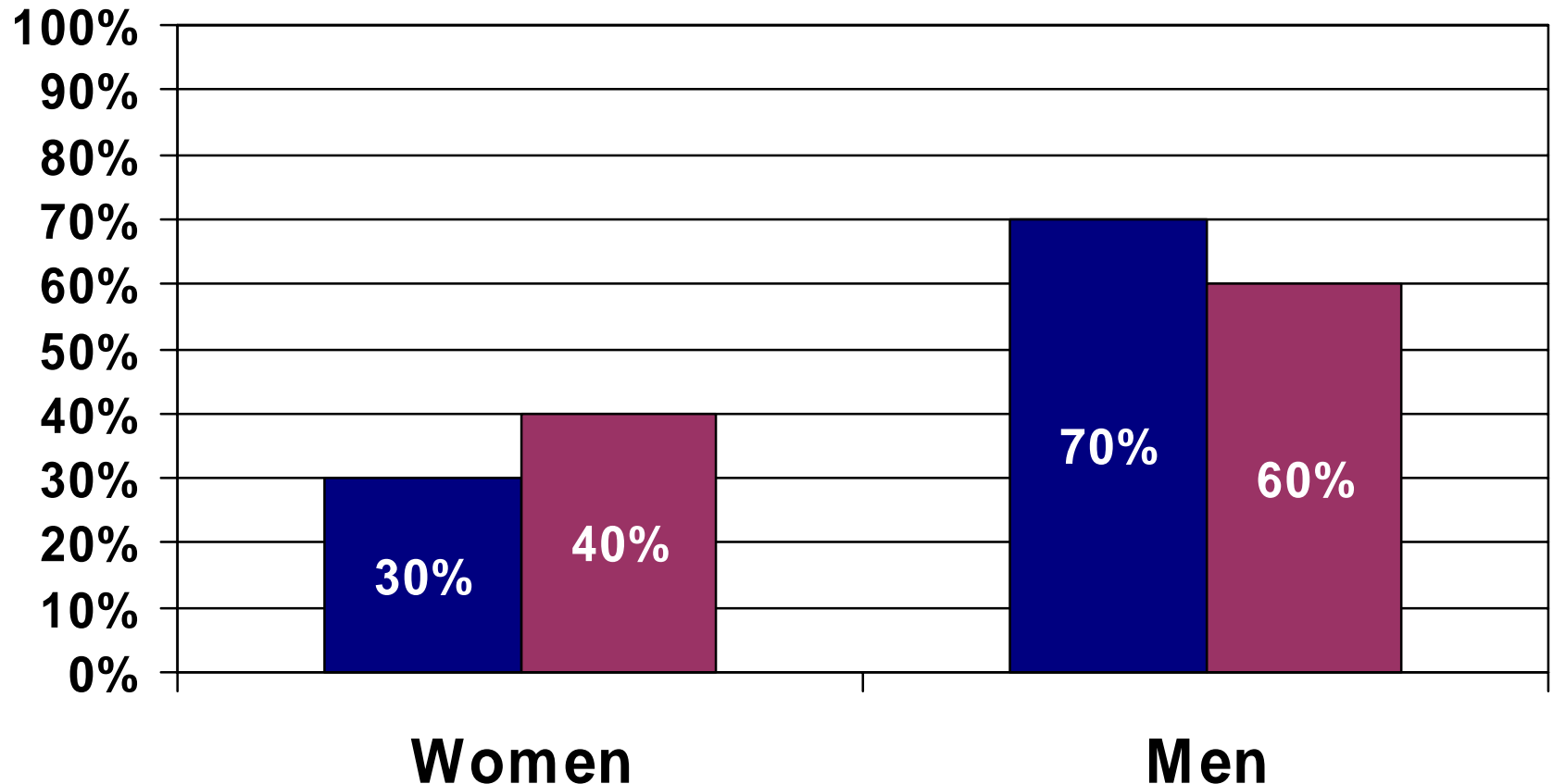
“Very Satisfied” or “Satisfied” with Quality of Guidance Received from Postdoc Sponsor*



*“Do Not Know” excluded.

The Pool Problem at UC Berkeley: Ladder Rank Faculty

■ Actual UCB Applicants ■ Potential UCB Applicant Pool*



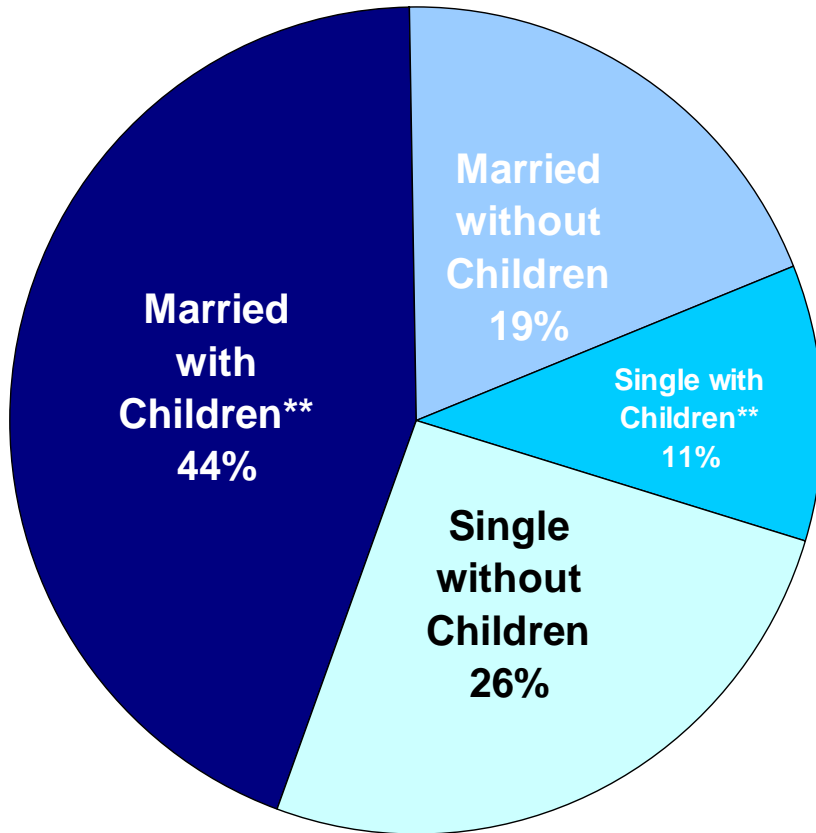
*Data prepared by Angelica Stacy, Associate Vice Provost for Faculty Equity, UCB. *Potential UCB Applicant Pool* is derived from NCES data on PhD degrees granted in 2000, cut to a selected group of top-ranked graduate institutions and cut to relevant disciplinary fields for UCB.

Major Findings: Family → Career

- Overall, **men** with “early babies” are 38% more likely than **women** with “early babies” to achieve tenure.
- **Women** with “early babies” leave academia before obtaining their first tenure track job.
- Single **mothers** are more successful than married mothers.
- **Women** with “late babies” do as well as women without children.
- Having no babies at all is the dominant success mode for **women**.
- **Men** who have “early babies” do very well. In fact, they do better than all others, including single **men** and **women**.
- A high percentage of **mothers** slide into the second tier, the part-time, adjunct and lecturer corps: the “gypsy scholars” of the university world.
- Many **women** change their career course in graduate school or as postdocs because of family concerns.

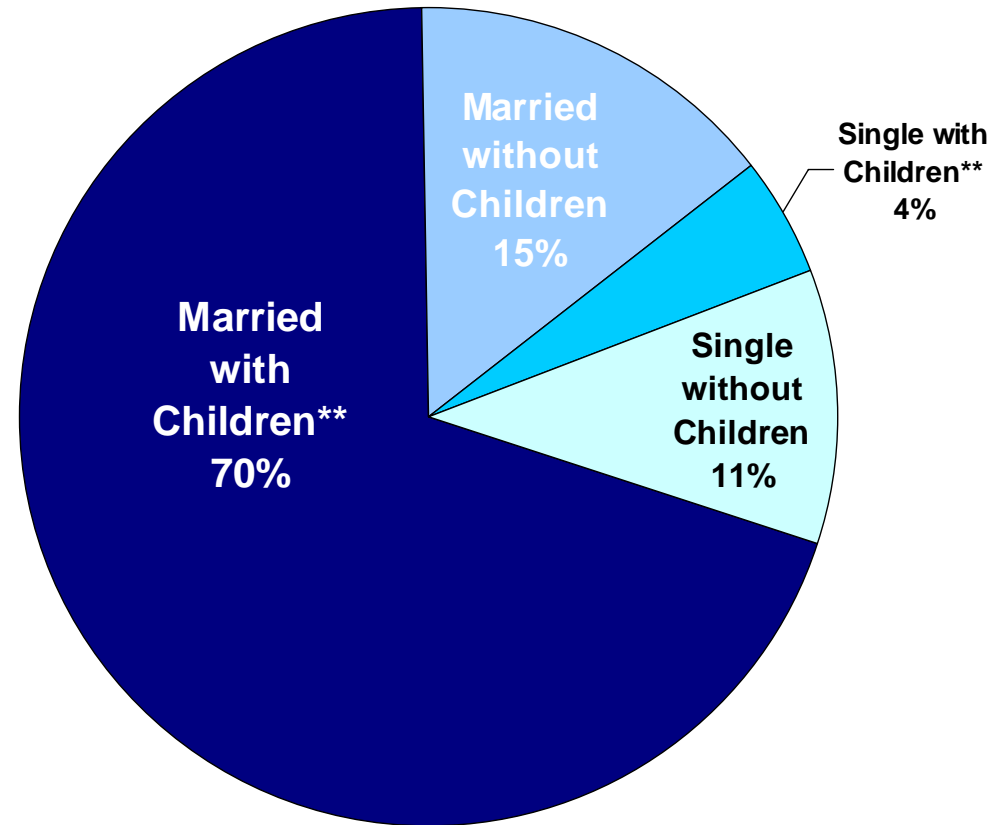
Family Status of Tenured Faculty, All Fields*

Women



N=10,652

Men



N=32,234

*PhDs from 1978-1984 Who Are Tenured 12 Years out from PhD.

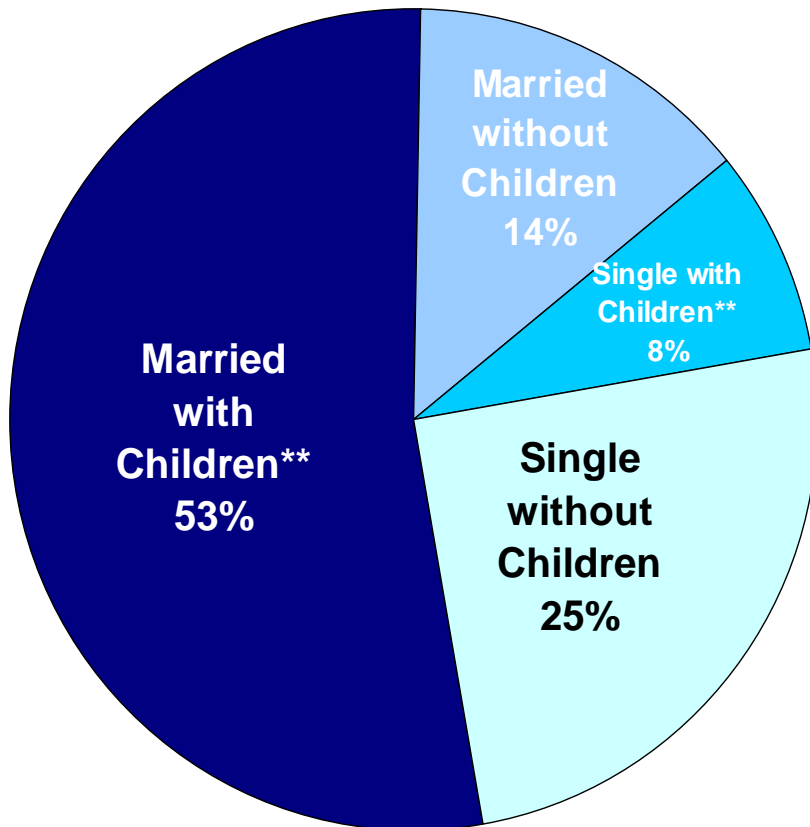
**Had a child in the household at any point post PhD to 12 years out.

Source: Survey of Doctorate Recipients. Sciences, 1979-1999, Humanities, 1979-1995

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

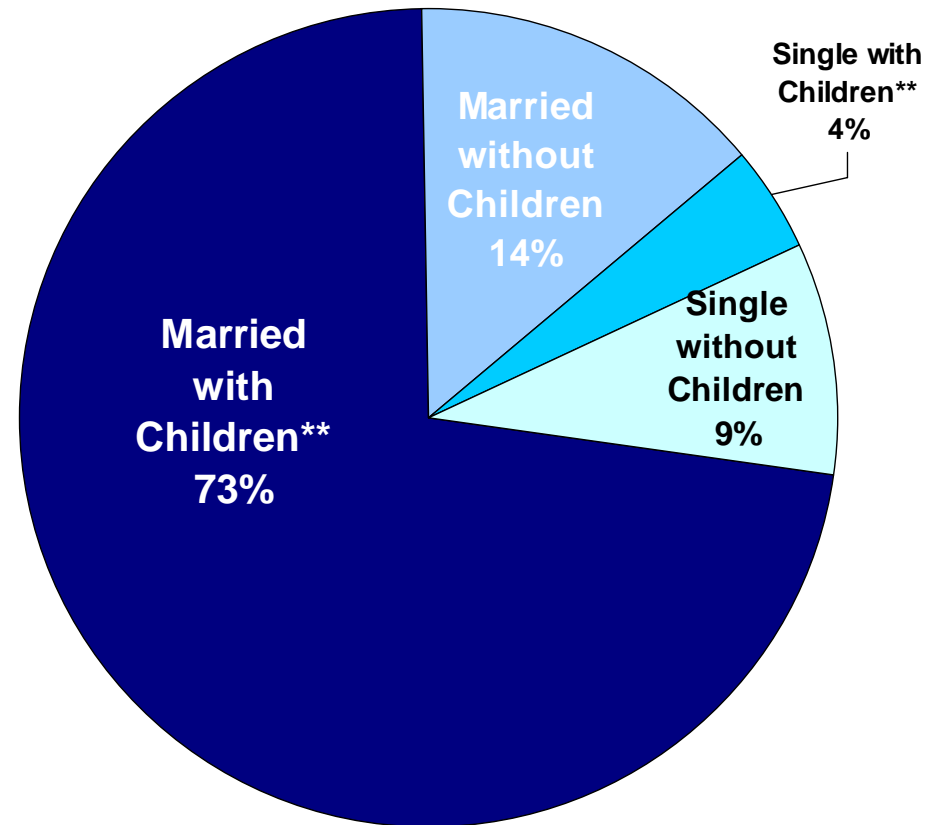
Family Status of Tenured Faculty in the Sciences*

Women



N=3109

Men



N=19,074

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

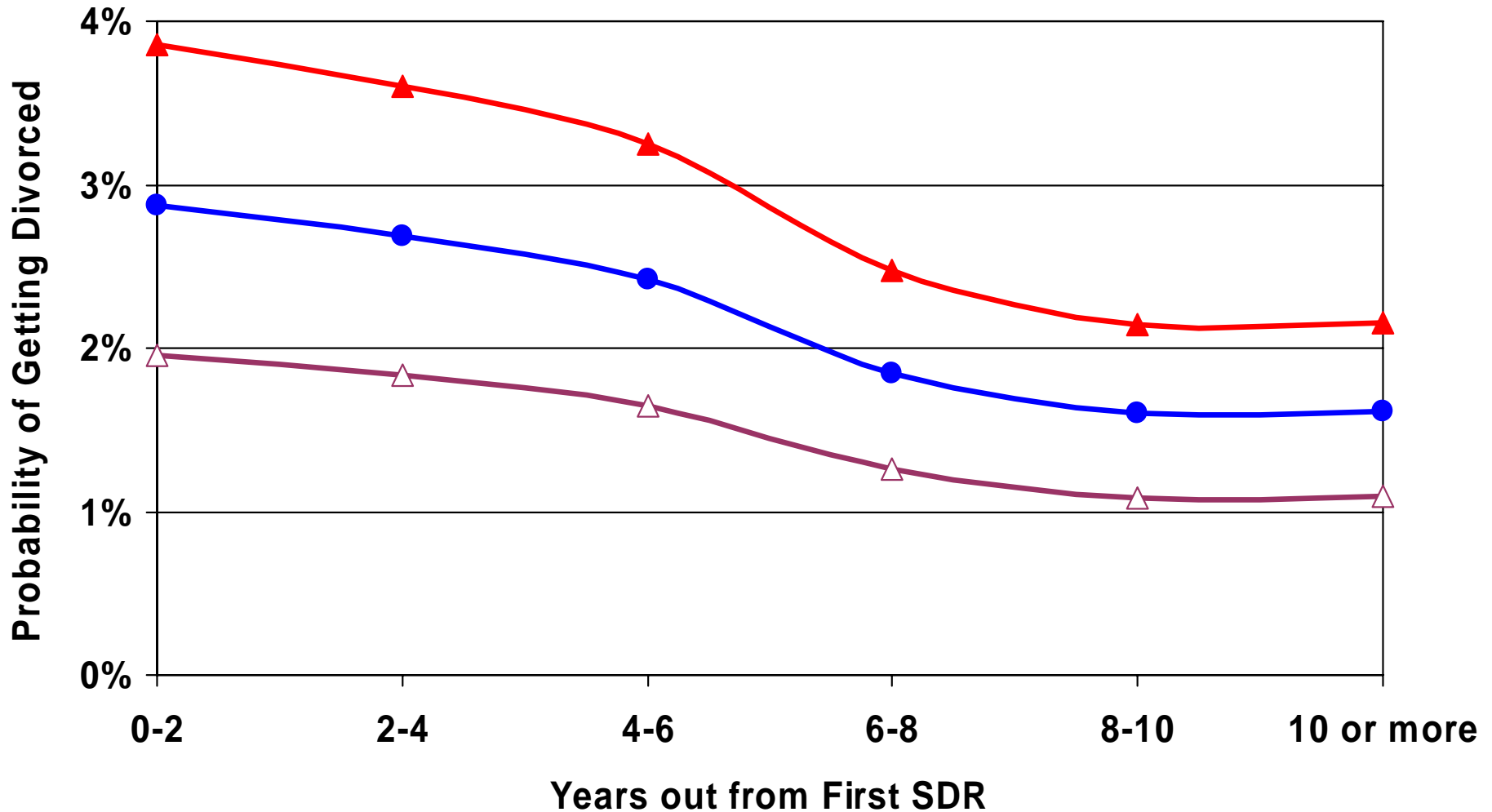
**Had a child in the household at any point post PhD to 12 years out.

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

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

Getting Divorced after the First SDR*

▲ Ladder-Rank Women ● Ladder-Rank Men ▲ Second-Tier Women**



*For individuals who were married at first post-PhD SDR survey. PhD recipients 1978-1992.

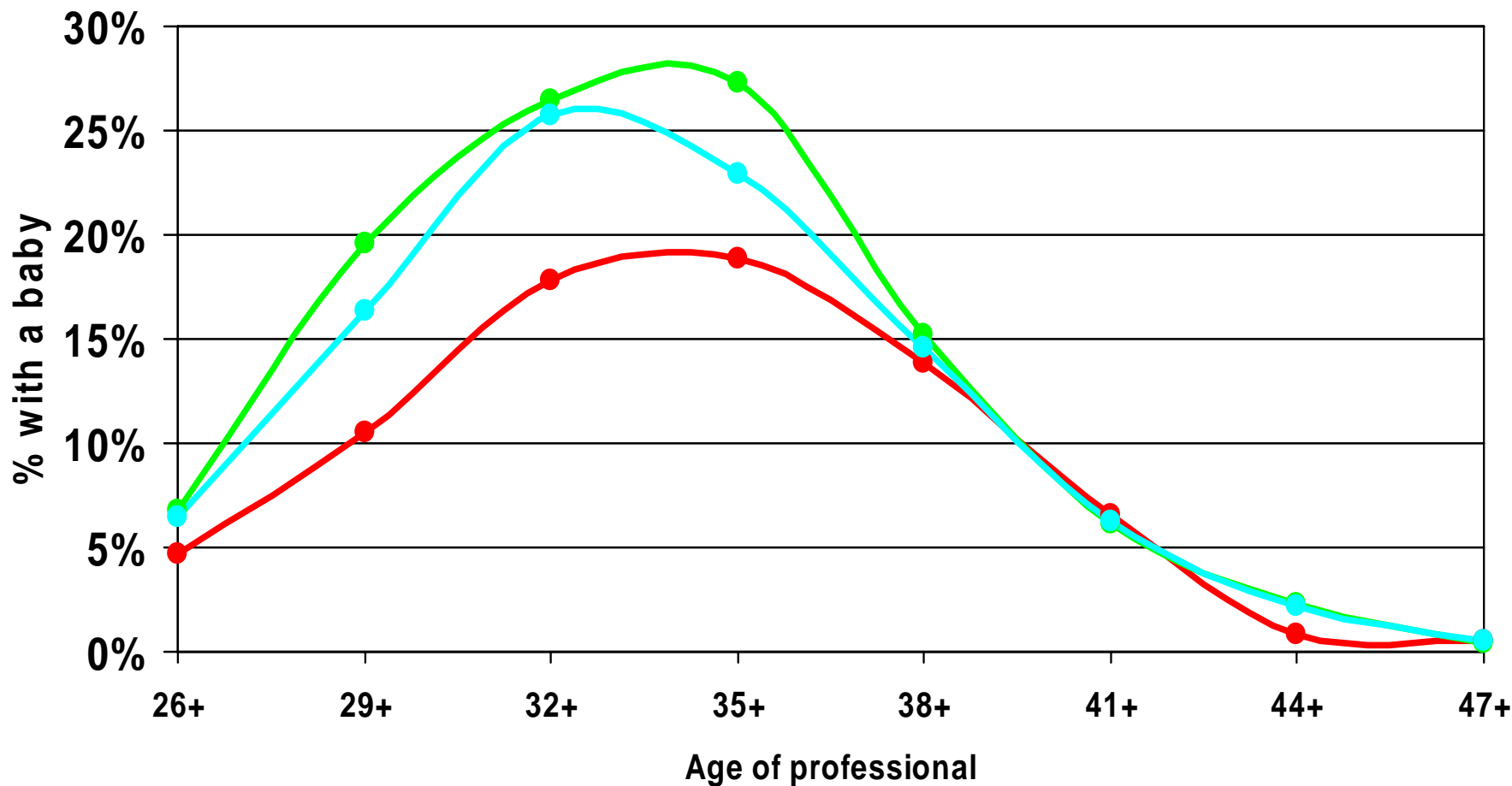
**Non-Tenure Track, Part Time, or Not Working.

Source: Survey of Doctorate Recipients. Sciences, 1979-1999, Humanities, 1979-1995.

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

Women Fast-Track Professionals with Babies* in the Household, by Age of Professional

—●— Women Faculty —●— Women Doctors —●— Women Lawyers



*Children, Ages 0 or 1 in Household.

Source: Census 2000, Pums 5% sample.

Major Findings: Career → Family

- Only one in three **women** without children who takes a fast-track university job ever become mothers.
- **Women** who achieve tenure are far more likely than **men** who achieve tenure to be single 12 years out from the PhD — more than twice as likely.
- If married, **women** are significantly more likely than **men** to experience divorce or separation.
- **Women** faculty were more than twice as likely as **men** faculty to indicate they wished they could have had more children — a full 38% of **women** said so in comparison to 18% of **men**.

UC Work and Family Survey: History and Response Rates

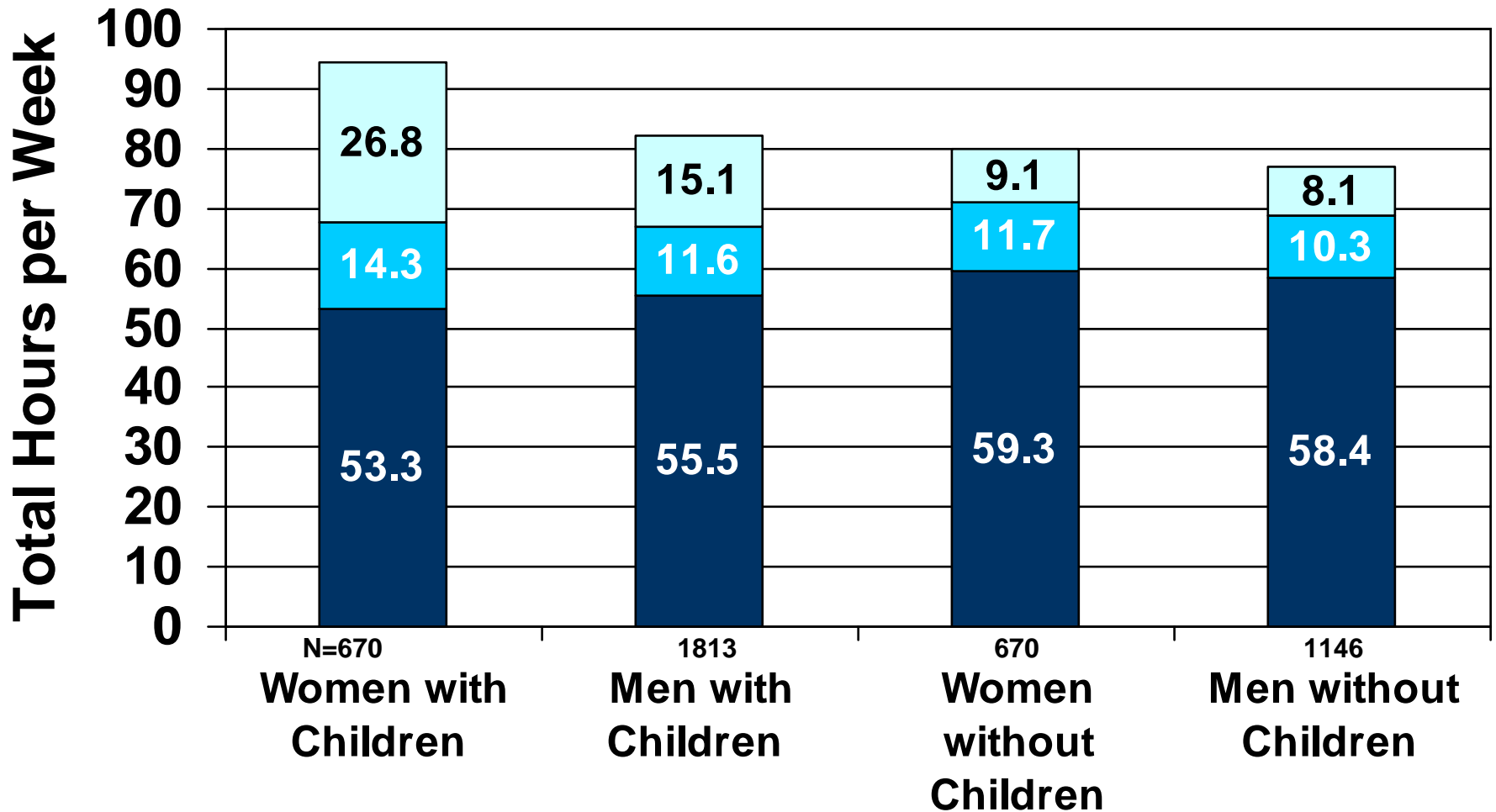
- Designed to assess the effectiveness of UC's existing family friendly policies (as of July 1988) for ladder-rank faculty.
- UC Berkeley surveyed in Fall 2002. All other (except Merced) campuses surveyed in Spring-Summer 2003.

UC campus	# Responses	# Surveyed	Response Rate
Berkeley	743	1,351	55%
Davis	820	1,385	59%
Irvine	445	910	49%
Los Angeles	788	1,758	45%
Riverside	367	663	55%
San Diego	472	998	47%
San Francisco	188	357	53%
Santa Barbara	374	802	47%
Santa Cruz	262	481	54%
Total	4,459	8,705	51%

Everybody is Very Busy

(UC Faculty, All Fields)

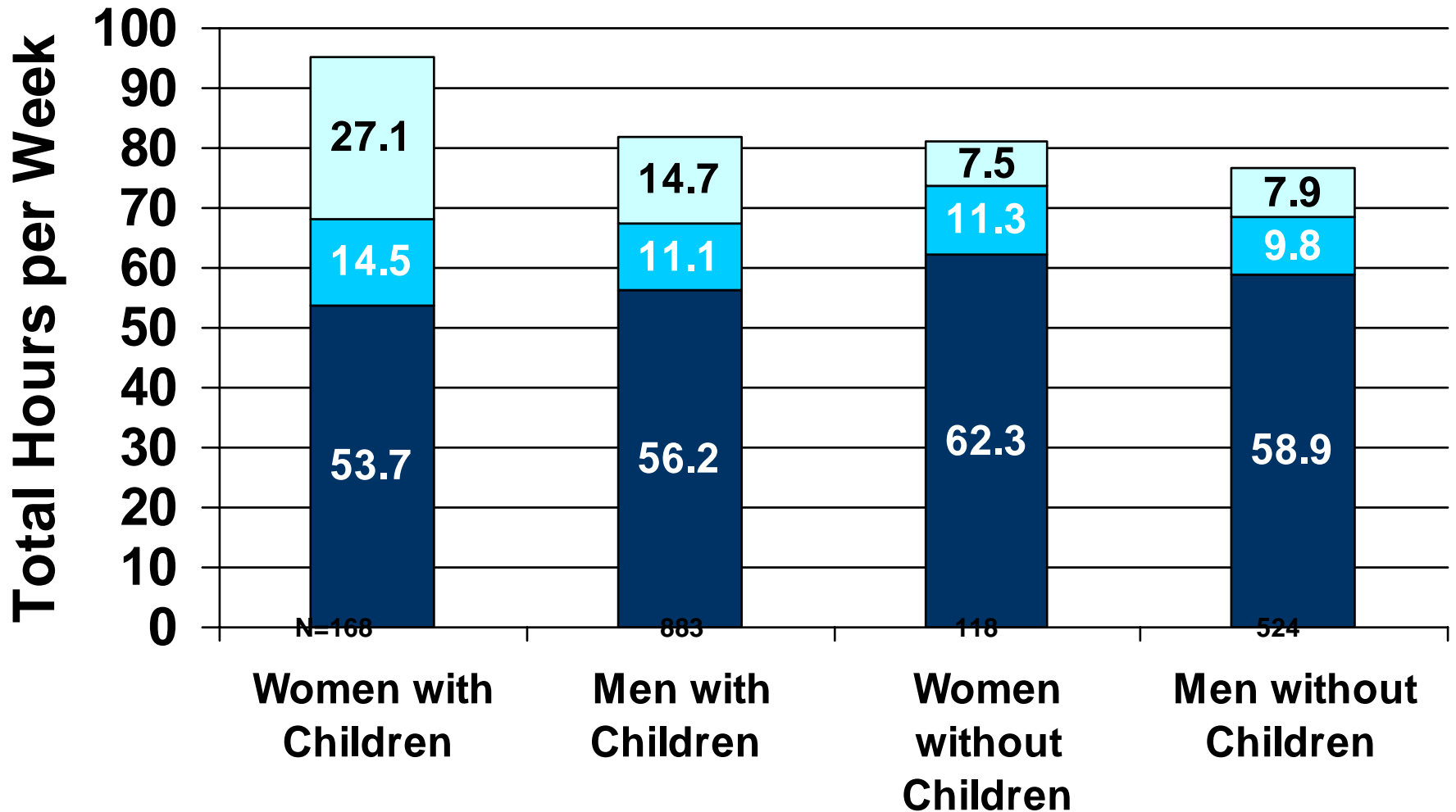
■ Professional ■ Housework ■ Caregiving



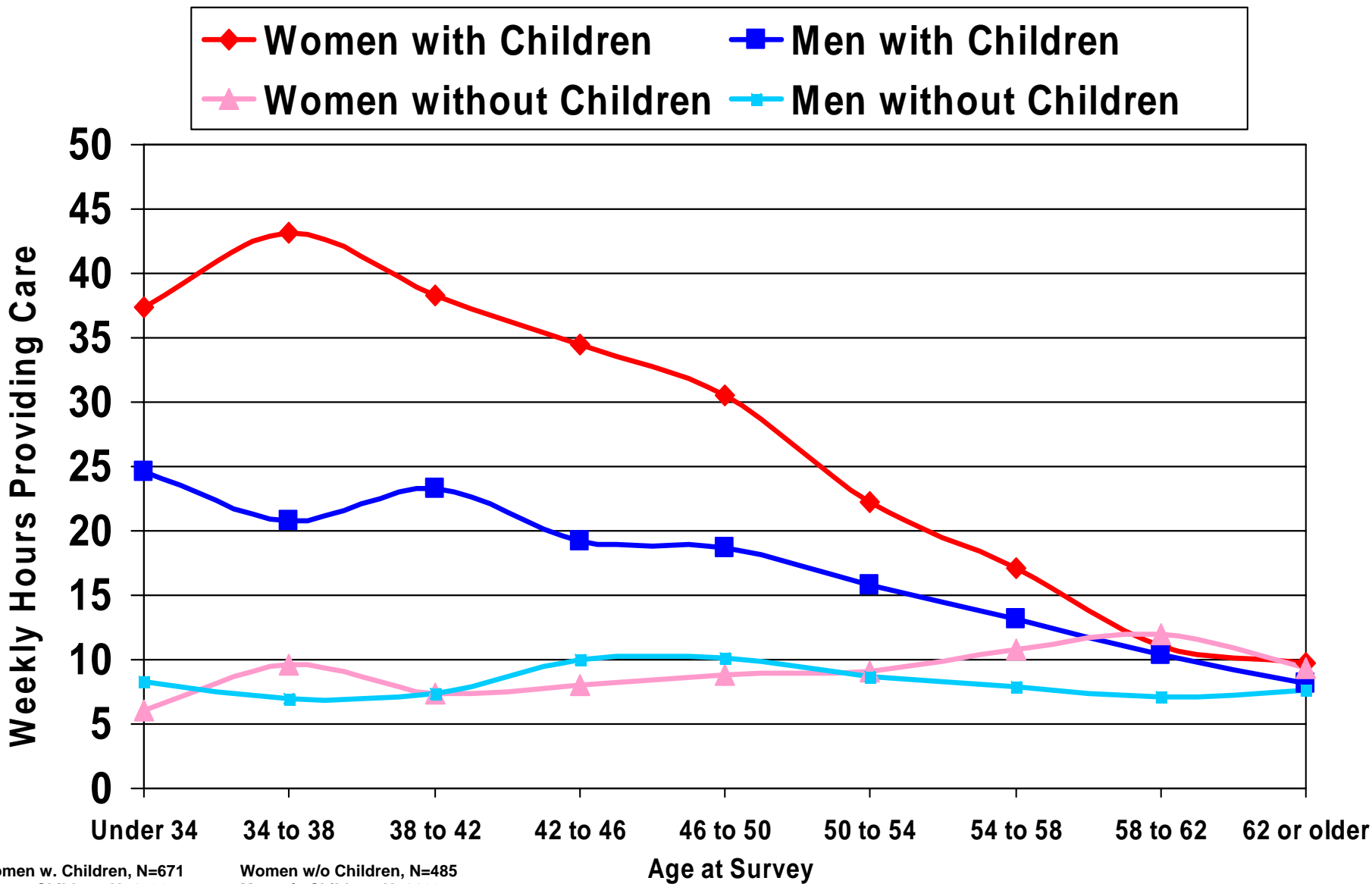
Everybody is Very Busy

(UC Faculty in the Sciences)

■ Professional ■ Housework ■ Caregiving



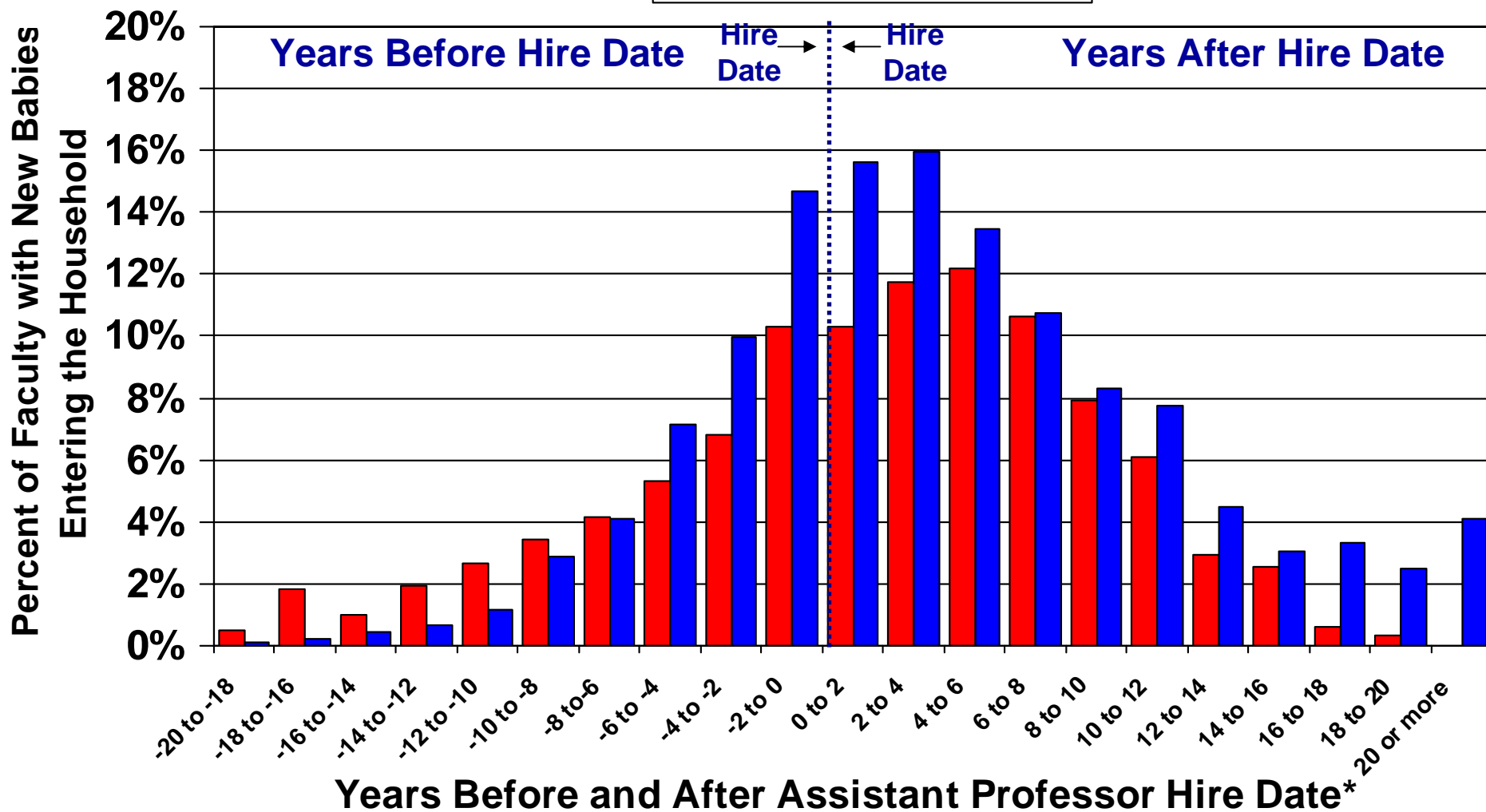
UC Faculty's Average Hours Per Week Providing Care by Gender, Children, and Age at Survey



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

The Baby Lag for UC Women Faculty in Pursuit of Tenure, All Fields

■ Women
 ■ Men



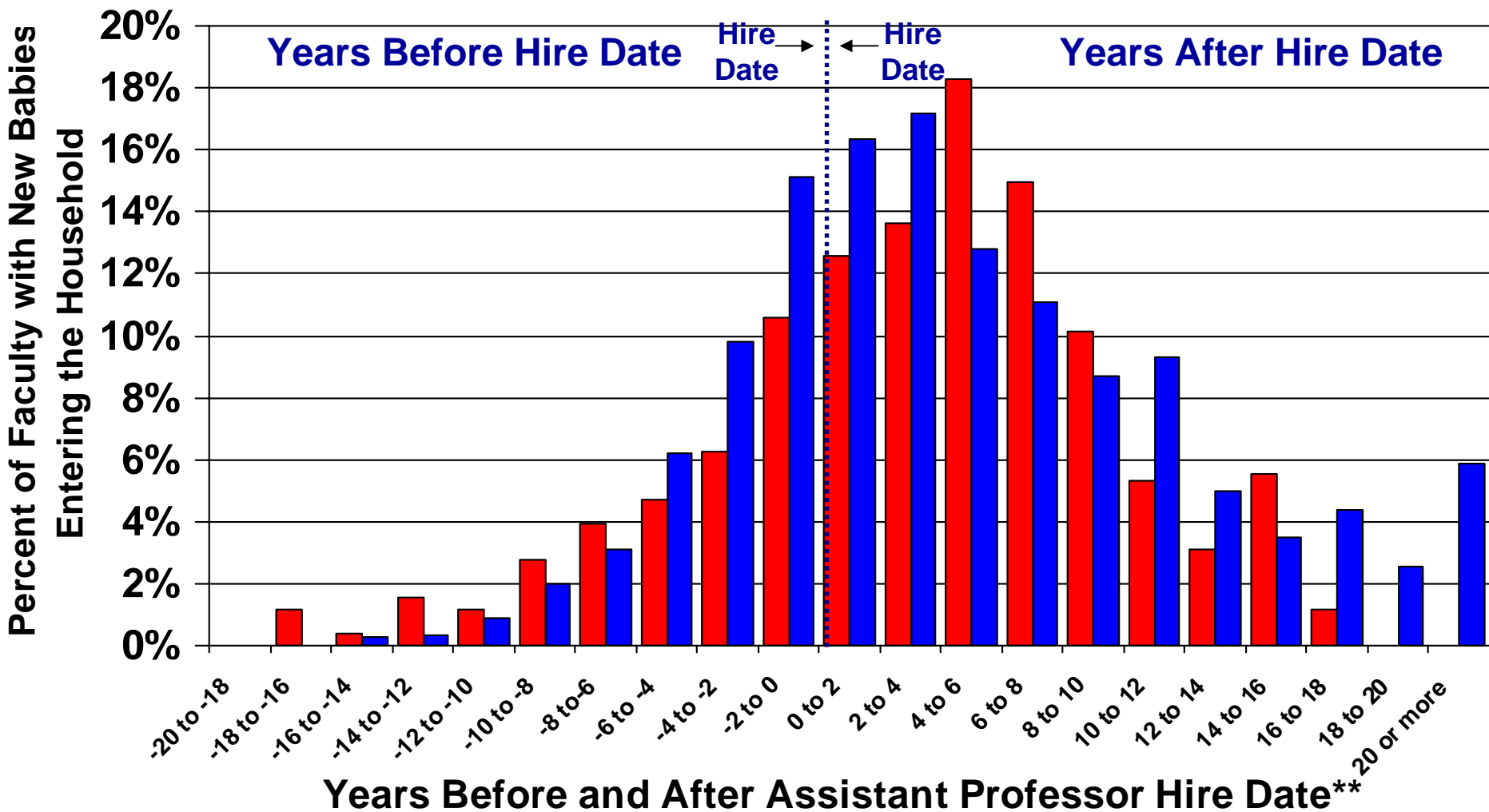
N=2339 Men
982 Women

*Year 0 represents Assistant Professor Hire Date

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

The Baby Lag for UC Women Faculty in Pursuit of Tenure in the Sciences*

■ Women ■ Men



N=1164 Men
265 Women

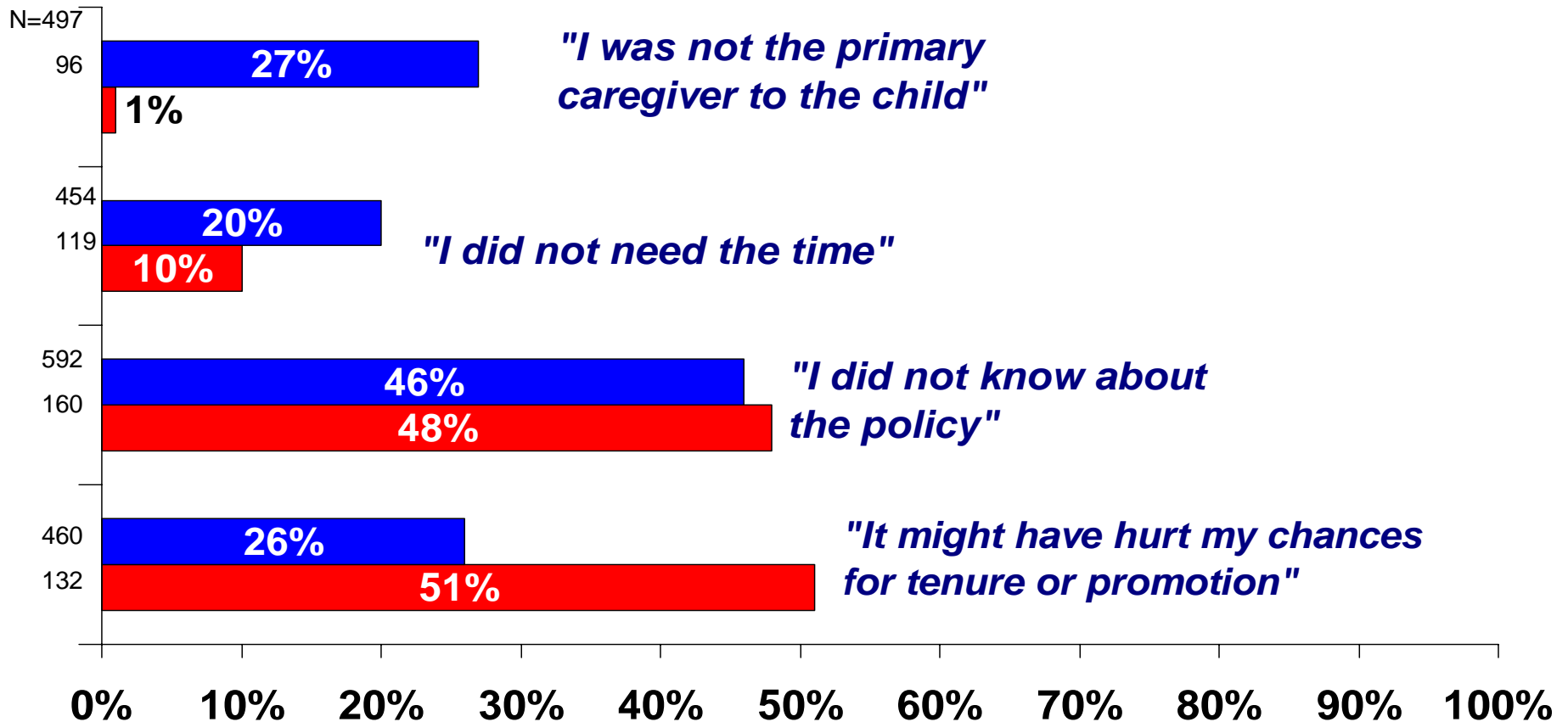
**Year 0 represents Assistant Professor Hire Date

*Includes STEM & Bio. Science.

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

Major Reasons Eligible UC Parents Did Not Use ASMD (Active Service Modified Duties)

■ Women ■ Men



Percent Citing Factor As a Major Reason for Not Using ASMD

Source: Mason, Mary Ann, Angelica Stacy, and Marc Goulden. 2003. "The UC Faculty Work and Family Survey." (<http://ucfamilyedge.berkeley.edu>). Please note: these questions were based on Robert Drago's Mapping Project Survey Instrument (<http://lsir.la.psu.edu/workfam/facultysurvey.htm>).

New Family Friendly Initiatives for UC Berkeley Ladder-Rank Faculty

- **Active Service-Modified Duties (ASMD)** — Provides teaching relief for parents with “substantial” caregiving responsibilities for a newborn or new adoptee: two semesters/quarters for birth mothers. Funded centrally to defray the cost to departments. *An entitlement.*
- **Tenure-Clock Stoppage** — Adds one year extension to the tenure clock for tenure-track faculty parents with “substantial” caregiving responsibilities for a newborn or new adoptee (one year per birth/adoption event, with a two-year cap). *An entitlement.*
- **Flexible Part-time Option** — To allow tenure-track faculty, pre- and post-tenure, to go from full- to part-time as life needs arise (i.e. caregiving responsibilities). Would encourage departments to take into account part-time status in advancement decisions. *Under review.*
- **School for Chairs** — Promotes the use of family friendly policies, resources and benefits. *Soon to be launched.*

Creating a Family Friendly Department: Chairs and Deans Toolkit

UC Faculty Family Friendly Edge

Excerpts:

Legal case examples

- In a tenure-denial lawsuit involving a reported tentative settlement of \$495,000, the provost at the University of Oregon allegedly told another professor that the mother's decision to "stop the clock" was a "red flag;" the department chair also wrote in a memo that she "knew as a mother of two infants, she had responsibilities that were incompatible with those of a full-time academician." [ref: Joan C. Williams, 2004. "Hitting the Maternal Wall," *Academe*, 90(6)8-12.]

Faculty quotes about negative responses from chairs to requests for family accommodations

- *"I want to emphasize that the greatest source of work-related stress in relation to having a child has been the hostility and recalcitrance of my chair who announced that he thought of ASMD as a 'special privilege' and who fought it all the way."* – Female faculty member

Graduate Student Parent Resources at UC Berkeley

New Initiatives

- Paid Childbirth Leave (approved February 2007 for Fall 2007)
- Expanded infant/toddler/preschool slots in a new Child Development Center (opened January 2007)
- UC Families: an online newsletter and resource for students, staff, and faculty at all UC campuses who seek to balance academic goals or careers with family life. See <http://parents.berkeley.edu/ucfamilies>
- 'Stopping the Clock': Extensions to academic milestones (preliminary exams, qualifying exams, Normative Time completion)

Continuing Initiatives

- **Family Student Housing** (two large complexes)
- **Children's Center & Family Resource Center** (located in Family Housing)
- **Student Parent Center** (located in Student Center)
- **Breastfeeding Support Program** (Student Health Center & campus locations)
- **Graduate Student Parent Grant** (funded by Graduate Division, administered by Financial Aid Office)

MOTHERS ON THE FAST TRACK



How a New Generation
Can Balance Family and Careers

MARY ANN MASON and EVE MASON EKMAN

by **MARY ANN MASON** and **EVE MASON EKMAN**

Publication Date: **May 31, 2007**

Publisher: Oxford University Press, USA Hardcover: 272 pages

In the past few decades the number of women entering graduate schools has been skyrocketing, while the number of women reaching the top rung of the corporate and academic worlds has remained relatively stagnant. Why are so many women falling off the fast track?

In this timely book, Mary Ann Mason traces the career paths of the first generation of ambitious women who started careers in science, academia, law, medicine, business, and the media in large numbers in the 1970s and '80s. ...

Along with her daughter, an aspiring journalist, Mason has written a guide for young women who are facing the tough decision of when -- and if -- to start a family. It is also a guide for older women seeking a second chance to break through to the next level, as Mason herself did in academia. ...

The result is a roadmap of new choices for women facing the sobering question of how to balance a successful career with family.

Read more at

<http://www.grad.berkeley.edu/deans/mason/index.shtml>

The UC Faculty Family Friendly Edge

An initiative for Ladder-Rank Faculty at the University of California,
funded by the Alfred P. Sloan Foundation



[The UC Faculty Family Friendly Edge](#) | [The Sloan Grant](#) | [Initiatives](#) | [Resources](#) | [Participate](#) | [Contact Info](#)

The UC Faculty Family Friendly Edge: turning a problem into UC's competitive advantage

The UC Faculty Family Friendly Edge is an initiative designed to develop and implement a comprehensive package of innovative work-family policies and programs for ladder-rank faculty in the UC system. The Faculty Family Friendly Edge will promote the recruitment and retention of the best and the brightest, help all members of the university community achieve their fullest potential as scholars and teachers, and greatly contribute to the continued excellence of the University of California.

- > [Learn More about the UC Faculty Family Friendly Edge](#)
- > [Download a Copy of the UC Faculty Work and Family Survey Presentation \(PPT\)](#)
- > [Download a Copy of the UC Faculty Work and Family Survey](#)

Major Initiatives

The UC Faculty Family Friendly Edge includes policies, programs, services and benefits to support faculty and their families... all types of families. These options and programs are continuously under improvement and expansion. Here are some examples:

- Up to one semester reduced duties (ASMD active service-modified duties) for new parents with substantial care-giving responsibilities.
- Stopping the tenure clock to allow time for care of a newborn or newly adopted child under five.
- A flexible part-time option for ladder-rank faculty with substantial familial caregiving responsibilities.
- Parental leave (unpaid) for up to one year to care for a child (including a child of either spouse or domestic partner).
- One year unpaid leave to care for self or a sick

What's New?

- > [Academe Do Babies Matter II article by Mason & Goulden](#)
[PDF with figures](#)
- > [Annals Marriage and Baby Blues article by Mason & Goulden](#)
- > [Chronicle of Higher Education reports on UC Family Friendly Edge Project](#)
- > [Chronicle of Higher Education holds online colloquy with Mary Ann Mason, How Babies Alter Careers for Academics](#)
- > [UC Faculty Work and Family Survey Presentation \(PPT\)](#)
- > [Academe Do Babies Matter article by Mason & Goulden PDF with figures](#)
- > [An Advisory Committee to UC Family Friendly Edge is Named \(DOC\)](#)

What's Happening @ Local Campuses:

Go to....

**UC President
Robert C. Dynes**
(1/27/2004)

"I am pleased to carry on the important work initiated by President Atkinson to promote gender equity and to develop more family friendly policies for ladder-rank faculty."