Professional Society Data on Women Faculty Members of Color

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Goal of this part of the project

- **Make professional society data on women STEM faculty of color available to ADVANCE institutions for use in benchmarking**

Why use professional society data?

- Professional society data represent a potential source of national research on minority women faculty (in contrast to institution-specific data).
- Societies have very high response rates.
- Societies have invested resources in these data collection efforts and are trusted by their constituents.

Professional society data: first steps

- **Identify which societies have data on women faculty of color in STEM**
- **Focus on methodology behind data collection**
- **Assemble links to reports and example questionnaires, available at www.cpst.org**
- **Held workshop in June 2009**
- **Still a work in progress**

Societies we contacted

- 10 engineering societies
- 17 life science societies
- 4 health and medical societies
- 10 math and computer science societies
- 8 physical science societies
- 8 social science societies

57 total

Data are available from:

- Membership databases (6)
- Directories or rosters (3)
- Surveys
  - Of members (4)
  - Of departments
    - Individual level (2)
    - Department level (aggregated) (9)

Membership data

- All have information on sex
- Fewer have information on ethnicity
- Most have information on employer
  - work at a university
  - indicate their industry as "education"
- Comparability?
- Also differences in the way race is asked

Data from directories and other sources

- Directories
  - American Geological Institute
  - American Society for Engineering Education
- Faculty roster & survey of med schools
  - Association of American Medical Colleges

Data from surveys of members or individuals

- Association for Computing Machinery
- Society for Neuroscience
- American Meteorological Society
- American Chemical Society

Problems with data collected from individuals

- Often there is no list of people from which to draw a sample
- Membership surveys exclude those who are not members

Background information

64. What is your sex?

O Female

O Male

65. Are you Hispanic?

O No

O Yes

66. Which of the following best describes your race?

O White

O African-American or Black

O American Indian or Alaskan Native

O Asian or Pacific Islander

O Other, please specify:

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Data from surveys of departments

- Individual-level data collected on race and sex
  - American Sociological Association
  - American Psychological Association
- Aggregate data collected
  - American Institute of Physics
  - Computing Research Association
  - Consortium for Ocean Leadership
  - American Statistical Association
  - American Mathematical Society (& CBMS)
  - American Economic Association
  - Committee for the Status of Women in the Economic Profession
  - American Political Science Association

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From American Sociological Society

Faculty Member	**Faculty Rank** (i.e., Full, Associate, Assistant)	**Tenure Status** (i.e., tenured, tenure-track, non-tenure track)	**Gender**	**Citizenship Status** (“yes” if citizen; “no” if not a citizen)	**Race/Ethnic Identity**	**AY 2006-2007 Salary**
Full-time faculty						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

From American Institute of Physics

Excluding postdocs, on March 1, 2008, how many of the physics or astronomy faculty members in your department are:

	Number of Men	Number of Women
African-American or Black	_____	_____
Asian or Asian-American*	_____	_____
Hispanic or Latino	_____	_____
White or Caucasian	_____	_____
A member of a group not mentioned above	_____	_____
TOTAL	_____	_____

*include faculty members from Indian subcontinent

Problems with department level surveys

- How accurate is information gathered from another person?
- Respondents may not know how to classify someone
- Respondents may not know which of your categories applies
- Surveys that collect aggregated data can limit information available

Surveys that collect individual data from departments

- **Can present a heavy burden for the respondent**

Differences in reporting

- **Some societies collect data but do not report it**
- **Data are not always reported in a way that make direct comparisons easy**

TABLE F.5 Percentages of full-time faculty belonging to various ethnic groups, by gender and type of department, in fall 2005. Except for round-off, the percentages within each departmental type sum to 100%.

	Percentage of Full-time Faculty				
	Asian %	Black, not Hispanic %	Mexican American/ Puerto Rican/ other Hispanic %	White, not Hispanic %	Other/Unknown %
PhD Mathematics Departments					
All full-time men	12	1	2	66	1
All full-time women	3	0	1	14	0
MA Mathematics Departments					
All full-time men	10	3	2	54	2
All full-time women	4	1	2	22	1
BA Mathematics Departments					
All full-time men	6	2	2	57	3

TABLE 5: DISTRIBUTION OF FACULTY BY RACE/HISPANIC ORIGIN, GENDER,

Race/Hispanic Origin	Women			
	Assistant Professor	Associate Professor	Full Professor	Total (All Rank
Asian	3,328	788	431	5,777
Black or African American	1,072	271	89	1,814
American Indian or Alaska Native	29	3	3	50
Native Hawaiian or Other Pacific Islander	53	2	1	72
White	12,200	5,657	4,164	27,05
Other	53	9	3	98
Unknown	2,206	432	222	4,566
Multiple Race	660	129	63	1,031
Cuban	12	3	1	21
Mexican American	157	40	10	267
Puerto Rican	197	79	65	406
Other Hispanic	661	179	104	1,165
Multiple Hispanic	45	15	6	81
TOTAL	**20,673**	**7,607**	**5,162**	**42,39**

Notes

* The Total columns include faculty at Instructor and Other ranks.

To allow an unduplicated faculty count, a faculty member's Hispanic origin classifications take priority ove

This table does not include faculty with unreported gender (n = 247).

Source: AAMC Faculty Roster, May 2008

Number of Women Faculty in US Physics and Astronomy Departments, 2008

	Highest Degree Granted by Department				
	PhD	Masters	Bachelors	Total	% of All Women
African American or Black	14	3	12	29	3
Asian or Asian American	106	14	56	176	16
Hispanic or Latina	19	7	12	38	3
White	465	64	340	869	78
Total				1112	100

Source: AIP Academic Workforce Survey

Conclusions

- **Data collectors from professional societies are still unclear about how their data can be available to and used by ADVANCE institutions.**
- **Data showing very small numbers of women faculty are problematic.**
  - **Can increase complexity of questionnaire with little return**
  - **Confidentiality**
  - **Possibility of excluding someone**

More conclusions

- **Data are not comparable across disciplines.**
- **Societies often have little flexibility in changing data collection.**
  - **Committee structure**
  - **Internal comparability**
- **Because of national focus, qualitative methods are rarely, if at all, used.**

For more information

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