



Evaluating Career Development Resources: Lessons from the Earth Science Women's Network (ESWN)

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Abstract

Retention of geoscientists throughout the professional pipeline is especially challenging in the case of groups that are already underrepresented in science, including racial minorities and women. The Earth Science Women's Network (ESWN) is a professional network of early-career female geoscientists that provides its members with a variety of career resources, through both informal, online and in-person networking and formal career development workshops.

Our study includes:

- 1) *Survey Study*: What are professional and personal situations of ESWN members, their professional development needs and the obstacles they face as women scientists?
- 2) *Focus Groups*: How do members perceive ESWN's purpose, benefits it offers, and ways to improve the network?
- 3) *In-depth Leadership Interviews*: What are their backgrounds, experience, and effect of the ESWN leadership position on their career?

This poster is based on the data collected in the Survey Study.

Professional Atmosphere and Obstacles

While responses to many survey items indicate a workplace atmosphere generally favorable to women scientists, other workplace indicators are less encouraging:

- 43% of respondents agree that some colleagues have a **condescending** attitude toward women
- 33% agree that men are more likely than women to receive helpful **career advice** from colleagues
- 67% disagree that women are appropriately represented in **senior positions**

Interactions with colleagues were also reported to have some negative aspects:

- 38% indicate feeling **excluded** from an informal network in their unit
- 46% report encountering **unwritten rules** about how they are expected to interact with colleagues
- 39% report having to **work harder** than their colleagues to be perceived as a legitimate scientist
- 55% indicate doing a great deal of work that is **not formally recognized** by their colleagues
- 38% are **reluctant to bring up issues** that concern them about the behavior of their colleagues for fear it might affect their reputation or advancement

ESWN members do not always feel like full participants in decision-making in their unit:

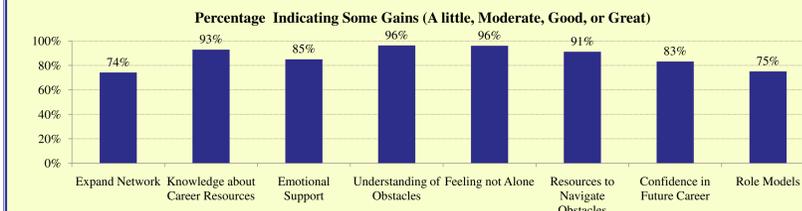
- 41% **disagree** that they have a **voice** in how resources are allocated
- 32% of respondents **disagree** that they feel like an **equal participant** in their unit's problem-solving & decision-making

The most commonly reported obstacles that members face as women in science are:

1. **Work-life balance** (62% checked)
2. **Male culture of academia** (27% checked)
3. **Isolation** (26% checked)

Gains

Members indicated making a variety of gains as a result of their involvement with ESWN:



Expanding professional networks is an important gain for the members:

- this gain meets the most frequently expressed need
- 74% indicate making some gains in expanding their professional network

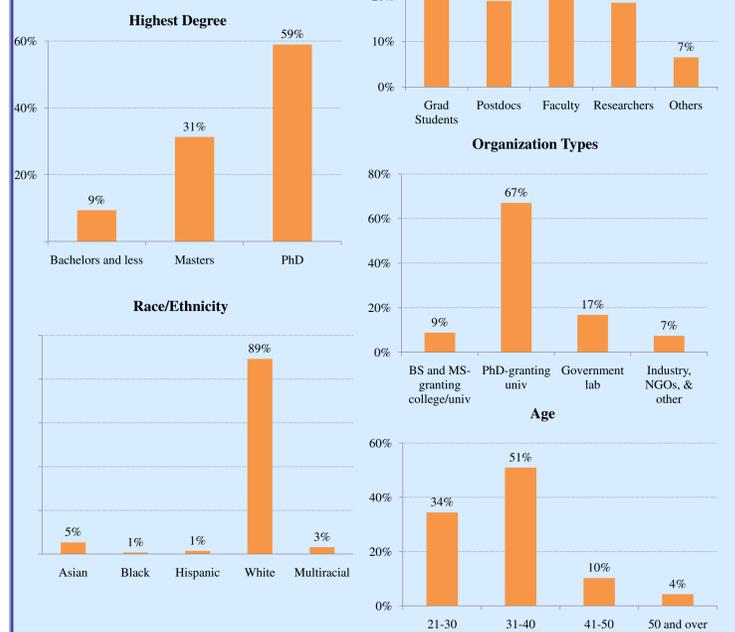
Members reported strong gains with respect to some personal and professional needs:

- 28% report good and 11% great gains in knowledge about **career resources**
- 24% indicate good and 14% great gains in **emotional support** in facing challenges
- 33% report good and 28% great gains in **understanding of obstacles** faced by women in science
- 29% indicate good and 39% great gains in recognizing that they are **not alone**
- 27% report good and 12% great gains in resources to help them **navigate obstacles**

Who Are ESWN Members?

The group's members are diverse in many respects:

- nationalities and racial/ethnic backgrounds
- age cohorts
- career stages and primary nature of work
- highest degree attained
- scientific disciplines
- organization types



Professional Development Needs

Members indicated a variety of needs for advancing their career in the next 1-2 years:



Some professional development needs are important across all career stages:

- *Expanding professional networks is the need most frequently selected overall*
- *It also ranked in the top three needs for each career stage/employment group*

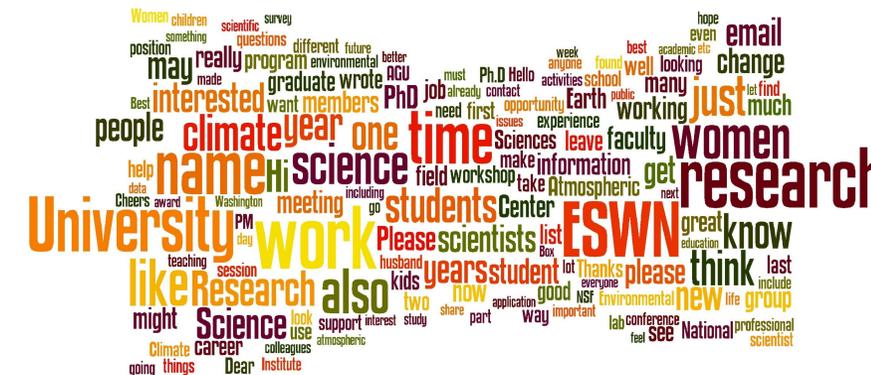
Other types of professional growth are more important in some career stages than others:

Graduate Students	Postdocs	Faculty	Researchers	Other
1. Expanding Networks (49%)	1. Independent Research (47%)	1. Time Management (57%)	1. Discipline Knowledge (42%)	1. Expanding Networks (47%)
2. Indep. Research Design (47%)	2. Expanding Networks (45%)	2. Management (53%)	2. Expanding Networks (41%)	2. Management (47%)
3. Discipline Knowledge (46%)	3. Discipline Knowledge (43%)	3. Expanding Networks (42%)	3. Time Management (41%)	3. Time Management (47%)

Legend: ■ Need more than faculty and other; ■ need more than faculty, research, & other; ■ need more than grads; ■ need more than grads & postdocs, statistically significant difference.

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Word Cloud: One Year of Discussion



Conclusions

- Members report a variety of professional development needs and obstacles they face in achieving their career goals.
- The most common need is to expand their professional network...
- ...and members reported making significant gains in expanding their professional network as a result of their involvement with ESWN.
- The most prominent obstacles reported by members are work-life balance, male culture, and isolation...
- ... and members reported very strong gains in understanding obstacles they face as women in (the male culture of) academia and recognizing that they are not alone (isolation).
- Future analysis will address how gains differ by the level of participation in ESWN activities.