ASU ADVANCE:
An Overview of the Social Science Research Plan

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ASU ADVANCE

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Research Questions

How does a consideration of intersectionality in an interdisciplinary environment affect our knowledge about patterns and outcomes in the academic life course?

Specifically:

• **Research Question 1**: What are the varieties of leadership pathways in an interdisciplinary academic environment?

• **Research Question 2**: What are the perceived opportunities for and barriers to career management and advancement in an interdisciplinary environment?

• **Research Question 3**: How does the academic life course in the explicitly interdisciplinary environment of ASU differ from academic career trajectories in other research universities?

Generally:

How do gender, race, ethnicity, foreign-born status, sexual orientation, and disability—and their intersectionality: 1) explain differences in the pattern and velocity of the life course; and 2) structure the varieties of actual and perceived leadership opportunities?
Key Concepts:

• Academic Life Course

• Intersectionality

• Interdisciplinary
The Academic Life Course

Note: There is also an academic non-tenure track
Intersectionality:
Traditional bases of social inequality and inequity interact in ways that further affect social mobility, including in scientific careers.
Intersectionality: Two Examples

Scientific evidence shows that the professor on the left is more likely to succeed in a variety of scientific indicators, including: scholarly productivity, professional advancement, salary, citations, funding, and linkages with industry and government. Note that both of these professors has multidimensional, intersectional backgrounds and experiences: The collection of intersections on the left tend to be advantageous, and the ones on the right are not.
Interdisciplinary Activity

Many Levels

Scientist

Cross-fertilizes own disciplinary perspective by integrating theories, methods, and knowledge from other fields.

Project

Researchers from different disciplines work collectively on a scientific project.

Field

Interdisciplines emerge, shifting epistemic domains.

Problem

Using multiple disciplines to address complex problems.

**Interdisciplinary Activity:**  
**Sustainability Example**

**Many Levels**
- **Scientist**
- **Project**
- **Field**
- **Problem**

**Example**

Professor Stephanie Pfirman: Cross-fertilizes own disciplinary perspective by integrating theories, methods, and knowledge from other fields.  
https://sustainability.asu.edu/person/stephanie-pfirman

ASU’s Knowledge Exchange for Resilience: University and community working together to improve climate-related resilience.  
https://resilience.asu.edu/

ASU School of Sustainability: Sustainability as emergent field.  
https://schoolofsustainability.asu.edu/about/school-of-sustainability/

Intergovernmental Panel on Climate Change: Multiple disciplinary approaches to understand and manage the consequences of climate change.  
https://www.ipcc.ch/
Multi-Method Research Design

Interviews
Lead: Romero

Survey
Lead: Pfirman

CV
Lead: Gaughan

Modeling
Lead: Kang

Benchmark
Lead: Bozeman

Emerging Design Opportunities:
Focus Groups
Bibliometrics

Original Proposal Design

New Design Opportunities
We propose to explore intersectional dynamics using qualitative semi-structured interviewing to understand how professors construct their life course in the ASU interdisciplinary environment. The interviews provide an opportunity for exploring in-depth how faculty perceive and experience opportunities and barriers to advancement in the rapidly changing interdisciplinary environment, and to explore how intersectionality affects career decision making and planning among faculty.

**At ASU**

For the qualitative arm of the study, we employ purposive sampling to ensure that a variety of faculty (e.g., by age, cohort, gender, race and ethnicity, rank, disability status, and sexual orientation) are represented in the semi-structured interviews.

If you would like to be interviewed, please contact: [monica.gaughan@asu.edu](mailto:monica.gaughan@asu.edu); or [mary.romero@asu.edu](mailto:mary.romero@asu.edu); or [barry.bozeman@asu.edu](mailto:barry.bozeman@asu.edu)
To study interdependence, timing, and institutional change, we use the academic CV in tandem with institutional data (for timing of academic reorganizations and family leave) to understand how timing of macrostructural changes interact with personal and professional life course timing; the timing of life course transitions often differ by statuses of intersectional theoretical interest.

At ASU:
Every faculty member is supposed to post a current curriculum vitae on the institution’s publicly accessible website. These updated CVs will form the baseline for the CV component of the analysis. Concepts to be captured from the CVs include educational history, prior employment, timing of transitions, order of trajectories, and leadership pathways.
The Center for Organizational Research and Design
http://cord.asu.edu/

The project focus is on expanding opportunities for the appointment of women and minorities to university line administrative positions at the department chair level and above.

Phase One of this project involves doing an intensive inventory of universities that have developed effective programs to advance women and minorities into line administration positions. Phase Two involves gathering data on programs in private, government and nonprofit organizations that seem to have worked in such recruitment.

At ASU:
Phase Three uses these findings to suggest new programs that could be used at ASU. These recommendations will be presented to the project sponsor, President Michael Crow, who has agreed to view our work and consider the possibility of enacting all or some of our recommendations.
New opportunity:
Mathematical modeling abstracts concepts and represents them mathematically and graphically to depict and explore dynamic systems. The academic life course is a dynamic system, which is multidimensional and longitudinal, taking place in shifting institutional contexts.
New opportunity:
ASU recruited Stephanie Pfirman this year, who brings experience, knowledge, and resources to the ADVANCE project. Pfirman’s work on interdisciplinarity and its relationship to intersectionality is one of the foundations of the entire project. A well-designed survey has sufficient power to explore behavioral, organizational, and climate components of interdisciplinary and intersectional dynamics.

At ASU:
ASU will serve as a critical site for the development and deployment of a national survey of interdisciplinary work. In particular, we focus on how organizational climates and structures affect both science and the scientists engaged in it.
Methodological Triangulation Enhances Validity

- **Interviews**
  - Lead: Romero

- **Survey**
  - Lead: Pfirman

- **CV**
  - Lead: Gaughan

- **Modeling**
  - Lead: Kang

- **Benchmark**
  - Lead: Bozeman

**Intersectional * Interdisciplinary**
For More Information

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The text of the research plan as originally proposed is available here:
advance.asu.edu