Assessing the Climate over Time

Abigail J. Stewart and Janet E. Malley
University of Michigan
NSF ADVANCE PI Meeting, June 20, 2007
Assessment of “Institutional Transformation”

- All ADVANCE projects use “key indicators” to assess certain outcomes
  - Recruitment
  - Promotion
  - Turnover
  - Leadership roles
- Other outcomes
  - Policy changes
  - Changes in language/discourse
    - “Trailing spouse” to “partner”
    - “Extra time” to “time in compensation for time lost to research”
Survey Indicators of Climate

• **Assess key behaviors**
  - Gender discrimination
    - Hiring
    - Promotion
    - Salary
    - Resources
    - Access to staff
    - Access to students
  - Sexual harassment (unwanted and uninvited sexual attention)

• **Assess “chilliness”**
  - Not Directly about Gender
    - Positive
    - Scholarly isolation
    - Surveillance
  - About Gender
    - Egalitarian atmosphere
    - Tolerant atmosphere
    - Tokenism
Issues with Campus-wide Surveys

• Problems of trust
• Problems of response rate (overall)
  o Can assess representativeness
• Changes in representativeness
  o Can address with weights
Produce Overall Picture of Climate

- Compare levels in three groups (and pairs)
  - Women scientists vs Men scientists
  - Women scientists vs. Women social scientists
- Compare over time
  - Does it change?
  - Does it change differentially for some groups?
    - Women scientists?
    - All scientists?
    - All faculty?
Sampling Issues

- Relatively low response rates at both times; lower at Time 2
  - 41% at Time 1 versus 31% at Time 2

- Differential representativeness
  - Lower response by male scientists both times
  - Lower response in some colleges at Time 2
    - Addressed with weights
Comparisons

• Two-way ANOVAs: time x group on outcomes (N=534)
  o Time (improve or worsen generally)
  o Group (differences across time)
  o Time x group interactions (improve or worsen only for some)
• Appropriate weights (for representativeness)
• Appropriate controls (variables related to outcomes)
  o (rank, race, college, age, when hired, single no child)
Group and Time Comparisons: Key Behaviors

- **Gender discrimination**: no time effect; group effect (women more than men); no interaction
- **Sexual harassment**: group effect (women more than men), declined for women scientists only
Group and Time Comparisons:
Climate Measures

• **Positive climate in department (6 items)**
  o Friendly, respectful, collegial, collaborative, cooperative, supportive

• **Scholarly isolation (4 items)**
  o My colleagues solicit my opinions about their research ideas and problems. ®
  o I feel pressured to change my research agenda in order to fit in

• **Surveillance (4 items)**
  o I constantly feel under scrutiny by my colleagues.
  o I have/had to work harder than I believe my colleagues do, in order to be/have been perceived as a legitimate scholar.

• **Tolerant Environment (4 items)**
  o Non-racist
  o Non-sexist
  o Non-homophobic

• **Gender Egalitarianism (9 items)**
  o There is equal access for both men and women to lab/research space.
  o Men are more likely than women to receive helpful career advice from colleagues.(R)
  o In meetings, people pay just as much attention when women speak as when men do.

• **Tokenism (2 items)**
  o My colleagues expect me to represent “the point of view” of my gender.
Group and Time Comparisons: Climate

- **Positive climate**: time effect (increased); group effect (men scientists higher than women scientists)
- **Scholarly isolation**: time effect (decreased); group effect (higher for women than men scientists); interaction (decreased for men and women scientists, not social scientists)
- **Surveillance**: group effect (women scientists higher than men)
- **Tolerant Environment**: time effect (increased); group effect (women scientists lower than men scientists and women social scientists); interaction (men scientists increased)
- **Gender Egalitarianism**: time effect (decreased); group effect (women scientists lower than both other groups); interaction (men scientists increased)
- **Tokenism**: group effect (women scientists higher than men scientists and women social scientists)
Overview of Survey Findings

• **Climate reports by women scientists very different from others**
  o Group effect on all six climate scales
  o Always more negative than men scientists
  o More negative than women social scientists on gender egalitarianism, tokenism, and tolerant environment

• **Some improvement in reports of climate by all**
  o Positive climate

• **Some improvement in climate reports by women scientists**
  o Sexual harassment
  o Scholarly isolation (also for men)

• **Some improvement in climate reports by men**
  o Scholarly isolation
  o Tolerant climate
  o Gender egalitarianism
Limitations of Studies Like These

- Appears to be comprehensive, but:
  - Difficult to evaluate meaning of judgments of climates for others vs. actual changes in the climate
  - Conceals problems of particular groups
    - Qualitative studies of low-frequency, low-trust groups: faculty of color, sexual minority faculty
  - Conceals experiences of particularly important actors
    - Qualitative studies of deans and chairs; and STRIDE committee members
  - Does not illuminate process of change or unit-level climates
    - Studies of key units that do and do not show change
Process of Change: Study of Departments with Transformation Grants

- Jean Waltman, of Center for the Education of Women
- 3 with large grants (in liberal arts and engineering colleges)
- 2 comparison departments (also in those colleges, similar fields and demographics)
- 39 faculty at T1; 23 faculty at T2
- lengthy interviews at each time
Themes in “Transforming” Departments

• Increased faculty awareness, improved climate, including greater transparency of policies and practices
• Created direct supports for women
  o Course releases or other compensations for extra service
  o Monthly mentoring lunches
  o Specific transitional supports (RA, travel, etc.)
• Improved hiring using STRIDE approaches to recruitment
• Openly addressed work/life issues for faculty
Comparison Departments

- Climate highly conflictual; conflict very absorbing; appeared to prevent recognition of gender issues
- Very low transparency of decision making and procedures
Assessing Climate

• Complicated
  o Direct measurement not straightforward
  o Interpretations of changes can be tricky and depend somewhat on the reporter

• Requires multiple strategies
  o Representative sampling and quantitative data useful in assessing some things
  o Sampling key groups illuminates particular problems and/or particularly crucial preconditions for leadership or change
  o Sampling key units may be very informative
  o Should include both quantitative and qualitative assessments