



Institutional Portfolio

*Case Western Reserve
University (CWRU)*

Case Western Reserve University ADVANCE IT Project: Academic Careers in Engineering and Science (ACES)

Dates of Grant: September 2003 – August 2008 (Round 2)

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Key Elements of the Overall Change Strategy

Case Western Reserve's ADVANCE IT project was a multi-faceted initiative to accomplish "institutional transformation that would lead to increased transparency and accountability as well as more equitable practices, policies, procedures, and structures and increased participation of women science and engineering (S&E) faculty at all levels and in leadership." The change theory is not explicit, but we infer some core ideas:

- Change is accomplished through a mix of grassroots and top-down initiatives that make policies and practices more equitable, thereby creating opportunities for women to succeed and educating everyone to improve the climate.
- Departments are key workplace units that shape faculty work lives and the best places to reach faculty.
- Leaders of departments and schools are key people in setting a tone, controlling and distributing resources, developing and executing plans, and maintaining accountability.

Relevant Elements in Case Western's Institutional Context

- Prior work included an institutional self-study of resource allocation, and focus groups of women. These data revealed low morale among women faculty and identified some serious issues in equity and climate. CWRU had recently established the President's Advisory Council on Women and the Flora Stone Mather Center for Women as "a central hub of communication, education, research, and programming."
- First private university to receive an ADVANCE IT award. Interviewees suggested that, at a private institution, there was less access to data and less required transparency.
- Urban Midwestern location. Follow-up work under an NSF PAID award has extended to other Northeast Ohio research universities.
- The project experienced extensive turnover of upper administration during the grant period, including a financial crisis and votes of no confidence in the president and provost. The ADVANCE team reported greater success in colleges where leadership was stable and less in those where it was not.
- Carnegie classification: Private RU/VH, majority graduate/professional.

Scope of the ADVANCE Initiative

The grant supported 31 departments in NSF-funded fields from four colleges; faculty access to ACES programs was provided by department as each was phased in over 4 years. One target was recruitment of minority faculty and students; some resources addressed LGBT, Jewish, and Latino/a faculty. Men could participate in some offerings.

Program Elements

ACES's main efforts focused on faculty development, faculty recruitment, and improving transparency, communication, and leadership in institutional processes and policies. Many activities were informed by data-gathering efforts that were used to engage key players as well as to gather information.

Faculty development

- Executive coaching was developed for deans and chairs, and for individual women faculty to “achieve professional and organizational goals, and to undertake positive change” in their units. “Hotline” coaching for women sought to help them address emergent (or urgent) issues or opportunities.
- A formal mentoring program was established, but met with resistance and under-use. It was replaced by informal and peer mentoring opportunities, organized by college.
- “Opportunity” grants supported women faculty to improve their chances of career success, seed new or hard-to-fund projects, and address timeout and work/life issues in women’s careers.
- New awards were established for women leaders, with recognition at an annual celebration of women’s accomplishments.
- Leadership development activities included an annual Provost’s Leadership Retreat that is ongoing, individualized coaching of chairs and deans, and sending chairs to departmental leadership workshops held at the University of Washington (see Brief 4).
- Department grants funded climate-related initiatives of the awarded department’s choosing.

Attention to faculty recruitment and hiring

- The search process was enhanced by: working with search committees to strengthen recruiting of women and diversify the pool; increasing accountability for deans in signing off on the candidate pool; providing training for chairs on reducing bias in searches; implementing improved data-gathering on pool diversity; and offering cultural competency training for all faculty. Much of the training and support was done by the new Faculty Diversity Specialist, a role that was later elevated and made permanent.
- Efforts to attract diverse faculty included: offering a local partner hiring network; providing family leave policies; developing “welcome packets” about local resources and opportunities for specific faculty groups; having a faculty diversity officer meet with candidates; and ensuring that searches include informal meetings with women faculty who are not on the search committee.
- Activities to build the pipeline included: providing a minority faculty exchange program with Minority-Serving Institutions to provide students with role models who are successful minority faculty; strengthening minority student persistence; offering summer research positions for minority students; and providing some career activities directed to postdocs and graduate students.

Increasing equity, transparency, and accountability in institutional processes

- The university formalized several previously informal policies on automatic tenure clock stoppage, family leave, dual career hires, and domestic partners (in a state with a same-sex marriage ban).
- The team led consistent and customized communication efforts with constituencies across campus, including interactions with individual departments and chairs.
- Data-gathering efforts were improved in several areas related to faculty diversity, as well as ways of feeding data back to those who could act on them (see <http://www.case.edu/admin/aces/provostleadership.html>)
- With the provost's leadership, the project supported strengthened accountability of chairs and deans by setting specific diversity goals, including these goals in the annual review, and providing chairs and deans with the authority to sign off on search pools.

Outcomes

- The trend in numbers of women faculty members was positive but college-dependent, showing increases in the numbers of STEM women in the colleges of Arts and Sciences (A&S) and Engineering, but decreases in Medicine and Management. This reflects an increase in the proportions of women in hiring pools and among those hired, and also reflects variability in the opportunity to hire (greater in Engineering than in Medicine). Management suffered overall cuts in faculty size during this time, so remaining steady was seen as a win.
- At the project's end, there were more women chairs in A&S and Engineering, and some successes in advancing women to higher rank and into endowed chairs.
- Climate measures were mixed; some measures improved and others declined from 2004 to 2007. COACHE survey data (see <http://isites.harvard.edu/icb/icb.do?keyword=coache>) indicated that junior faculty were less satisfied than a similar group at peer institutions. Informal observations suggest that women's morale has improved and overall gender equity awareness has increased.
- Salary equity improved, with help from specific administrative efforts to remedy disparities identified in the institutional self-study.
- Institutionalization has been strong in some areas, but mixed in others. Policies were formalized, and hiring procedures were strengthened and formalized, with support from permanent positions in the provost's office and in two schools. Leaders' accountability and institutional data collection are stronger. Several of the faculty-level activities, such as workshops, networking events, and celebrations, have been made permanent at the Flora Stone Mather Center for Women.

Research Team Observations

- The team was strong and stable despite other changes, including the PI's promotion to interim provost for part of the project period. This stability seems to have been a positive force in communicating with departments and engaging "pockets of resistance."
- Colleges at CWRU are fairly autonomous, which may explain the emphasis on formalizing and making transparent the processes and policies.
- Hiring was a major focus, while tenure and promotion were not formally addressed.

- Formal activities focused on structures and processes and not on cultural change. Some culturally focused activities did take place via a male allies group, department grants, and the Dean's Fellows for collegiality, several of which were later, spontaneous additions to the project portfolio.

Project Team Observations

Team members published or initiated a number of books and articles during the award period, including:

Bilimoria, D. & Liang, X. (2012). *Gender Equity in Science and Engineering: Advancing Change in Higher Education*. New York: Routledge. ISBN-10: 0415885620

Bilimoria, D., & Stewart, A. J. (2009). "Don't ask, don't tell": The academic climate for lesbian, gay, bisexual and transgender faculty in science and engineering. *NWSA (National Women's Studies Association) Journal*, 21(2), 85-103.

Bilimoria, D., Joy, S. & Liang, X. (2008). Breaking barriers and creating inclusiveness: Lessons of organizational transformation to advance women faculty in academic science and engineering. *Human Resources Management*, 47(3), 423-441.

Bilimoria, D., Liang, X., Carter, S. & Turell, J. (2013). Faculty at early, middle, and late career stages: Gender effects. In S. Vinnicombe, R. J. Burke, S. B. Beard & L. L. Moore (Eds), *Handbook of Research on Promoting Women's Careers*. Northampton, MA: Edward Elgar Publishers, pp. 304-325.

Bilimoria, D., Hopkins, M. M., O'Neil, D. A., & Perry, S. (2007). Executive coaching: An effective strategy for faculty development, in Stewart, A. J., J. Malley, and D. LaVaque-Manty (Eds.), *Transforming Science and Engineering: Advancing Academic Women*. Ann Arbor: University of Michigan Press, pp. 187-203.

Jordan, C. G. & Bilimoria, D. (2007). Creating a productive and inclusive academic work environment, in Stewart, A. J., J. Malley, and D. LaVaque-Manty (Eds.), *Transforming Science and Engineering: Advancing Academic Women*, Ann Arbor: University of Michigan Press, pp. 225-242.

Liang, X. & Bilimoria, D. (2007) The representation and experience of women faculty in STEM fields, in Burke, R. & Mattis, M. (Eds.), *Women and Minorities in Science, Technology, Engineering and Mathematics: Upping the Numbers*. Northampton, MA: Edward Elgar Publishing, pp. 317-333.

For Further Reading

The ACES program website describes its current work, sustained after NSF funding ended. The Archives section documents the project's activities under the NSF ADVANCE award.

<http://www.case.edu/admin/aces/>

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