

NM-PAID: Partnering for Diversity at New Mexico Institutions of Higher Learning and Research

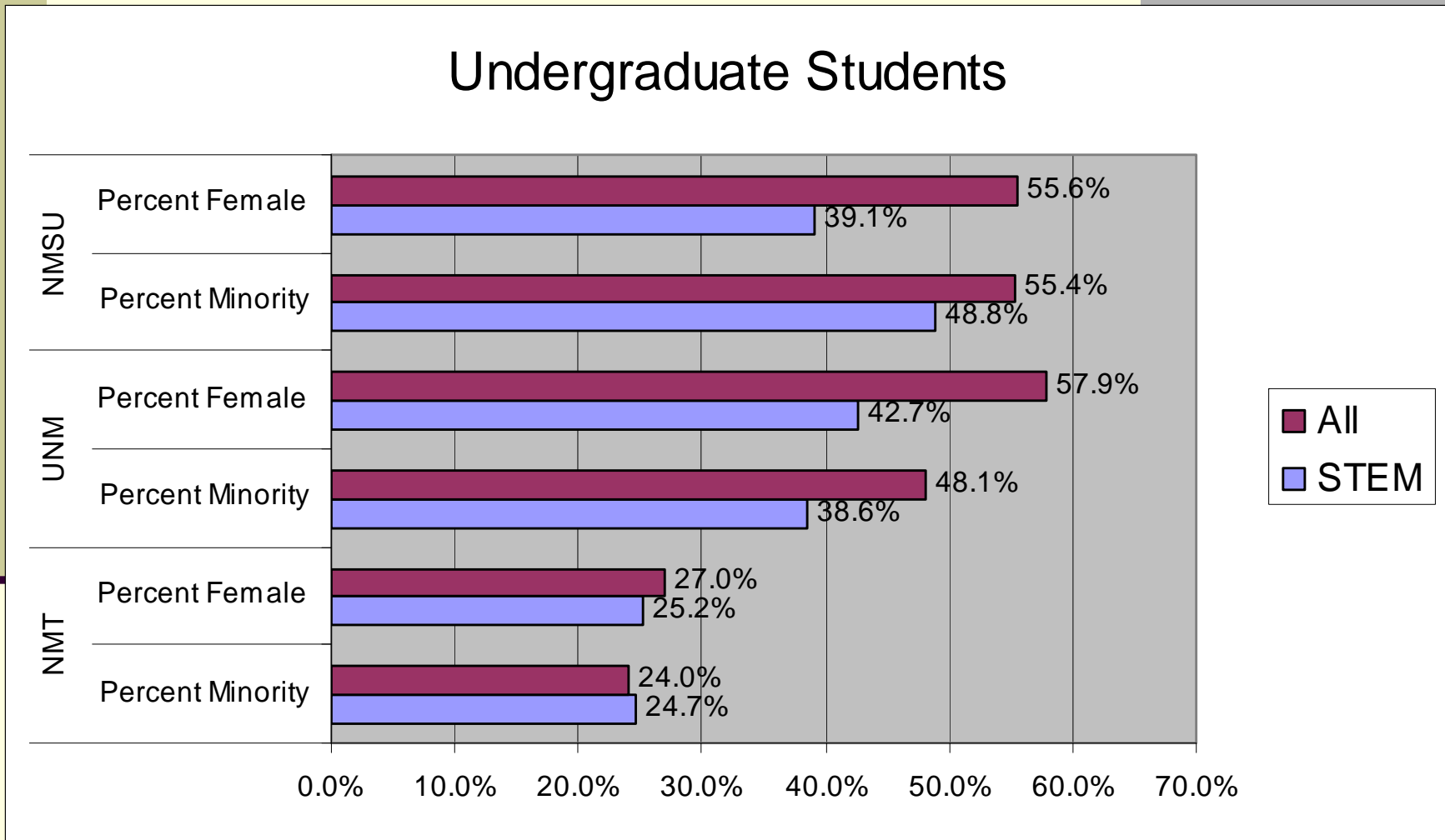
- New Mexico State University (NMSU)
 - PI, Dr. Tracy Sterling, Weed Physiology
 - Co-PI, Dr. Tara Gray, Teaching Academy
- University of New Mexico (UNM)
 - Co-PI, Dr. Alejandro Aceves, Mathematics & Statistics
- New Mexico Institute of Mining and Technology (NMT)
 - Co-PI, Dr. Tanja Pietraß, Chemistry
- Los Alamos National Laboratory (LANL)
 - Co-PI, Dr. Jim Bossert, Earth and Environmental Sciences (EES)

NM-PAID: Partnerships for Adaptation, Implementation and Dissemination (Alliance for Faculty Diversity)

- Jan. 2007 – Dec 2009
- To disseminate NMSU's best practices of:
 - Mentoring
 - P&T Training
 - Department Head training
 - Pipeline focus on Post-docs
- To:
 - UNM, NMT, LANL
 - Keeping in mind their unique needs and structures

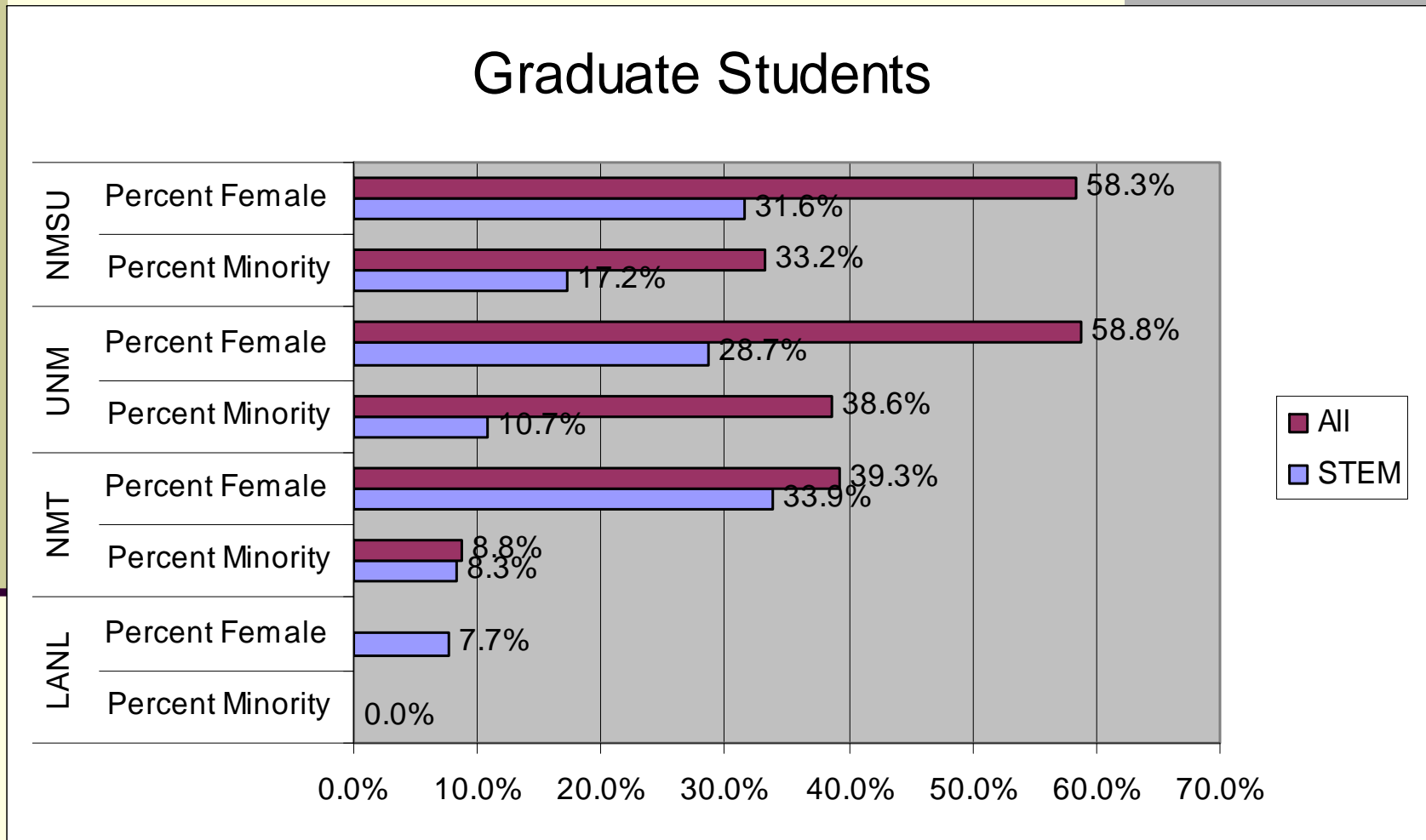
Institutional Data – Fall 2005

Undergraduate Students



*Data from Office of Institutional Research from each institution

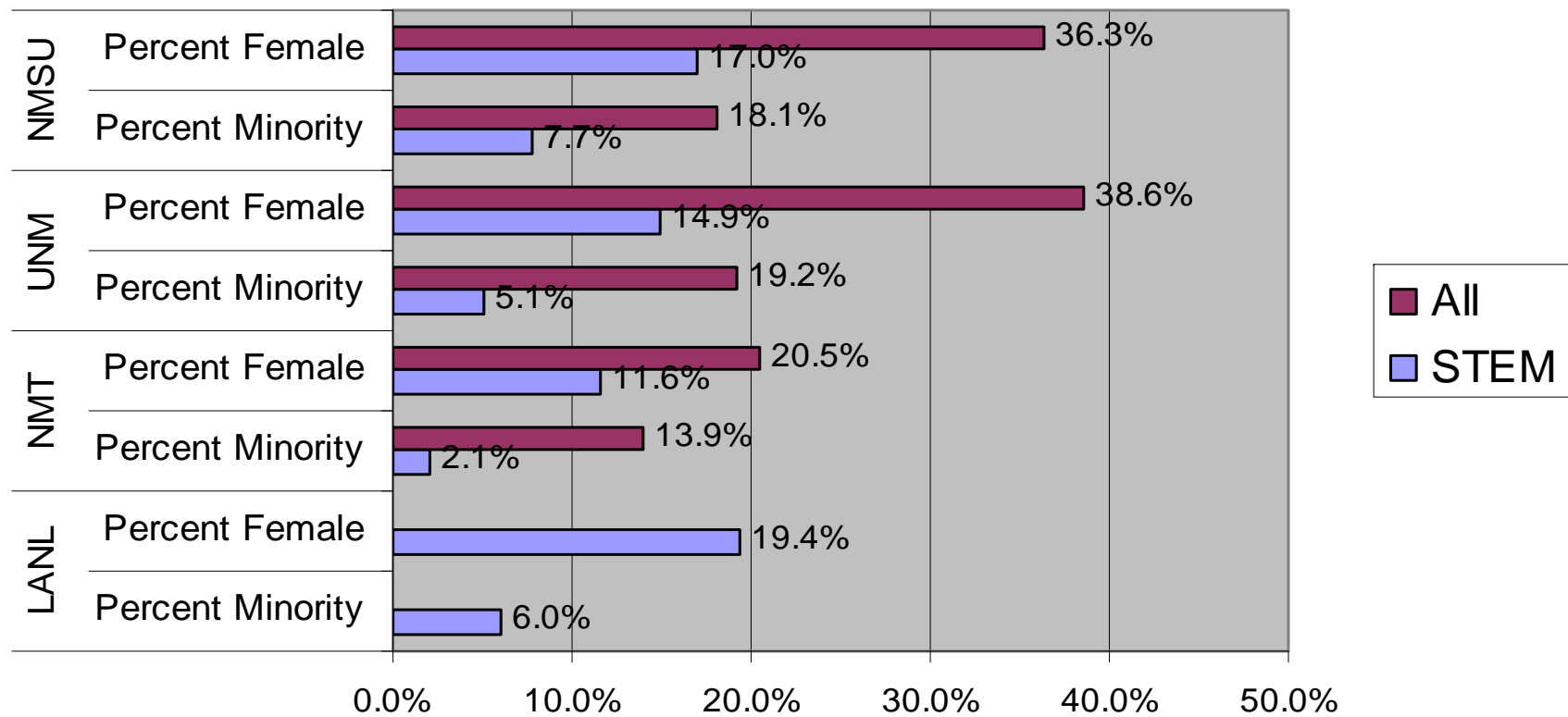
Institutional Data- Fall 2005



*LANL STEM is EES Department; student numbers represent postdocs

Institutional Data – Fall 2005

Tenured and Tenure-Track Faculty



*LANL STEM is EES Department; LANL 'Faculty' represent full-time scientists.

NM-PAID Goals

- Increase knowledge of Diversity Issues and Strategies
 - Mentoring approaches
 - Promotion and tenure issues
 - Leadership training

- Institutionalize sustainable grass roots structure for faculty development training
 - Sustainable grass-roots committees at each institution
 - Supported by upper administration
 - Including women and men
 - Annual Department Head Retreats to promote diversity leaders within the ranks

- Provide a pipeline to STEM careers for diverse students
 - Postdoc and student training
 - Participation in the professoriate
 - NM Alliance for Graduate Education and the Professoriate (AGEP)

NM-PAID Participants: Co-PIs

- New Mexico State University (NMSU)
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NM-PAID Participants: Faculty Development Partners

- UNM: Office of the Provost
 - Dr. Gary Smith, Special Assistant to the Provost & Professor, Earth and Planetary Sciences

- NMT: Center for Innovative Teaching and Learning (CITL)
 - Dr. Scott Zeman, Director of Faculty Development and Associate Professor, History

- NMSU: Teaching Academy
 - Dr. Tara Gray, Director and Associate Professor, Criminal Justice

NM-PAID Participants: STEM Pipeline Partner

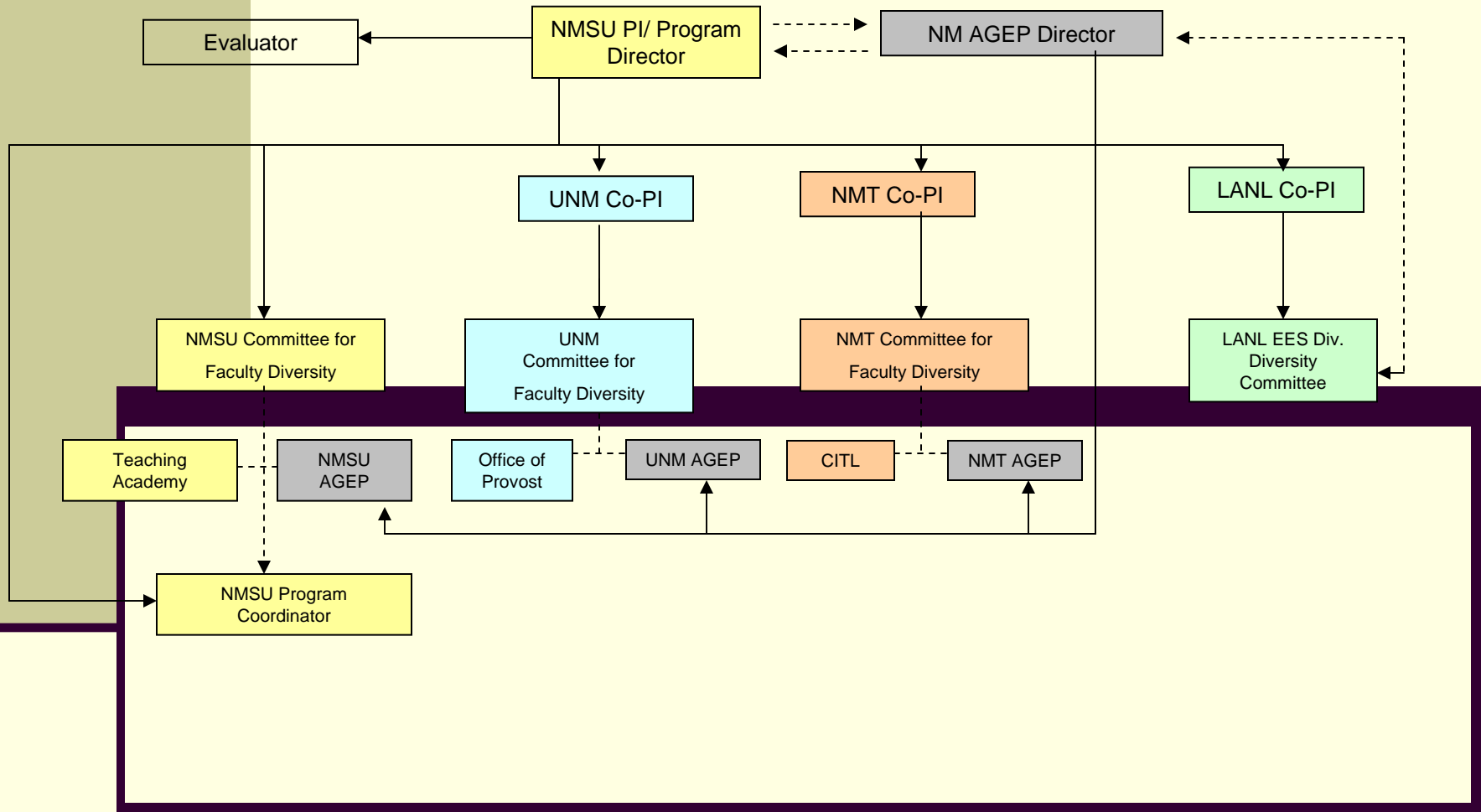
- **NM-AGEP - New Mexico Alliance for Graduate Education and the Professoriate**
 - NM-AGEP is one of ca. 20 NSF programs aimed at increasing the number of minority Ph.D.s (and those who join the professoriate) in STEM
 - Alliance consists of NMSU, NMT and UNM

NM-PAID Participants: Evaluator

Dr. Lisa M. Frehill

- Executive Director, Commission on Professionals in Science and Technology
- ADVANCE Program Director (2005-2006), University of California at Irvine
- Founding Program Director and Principal Investigator of ADVANCE: Institutional Transformation award at NMSU
- Associate Professor of Sociology, New Mexico State University
- Ph.D. in Sociology with a minor in systems engineering, University of Arizona
- B.Sc. in Industrial Engineering, General Motors Institute (now Kettering University)

NM-PAID: Organizational Chart

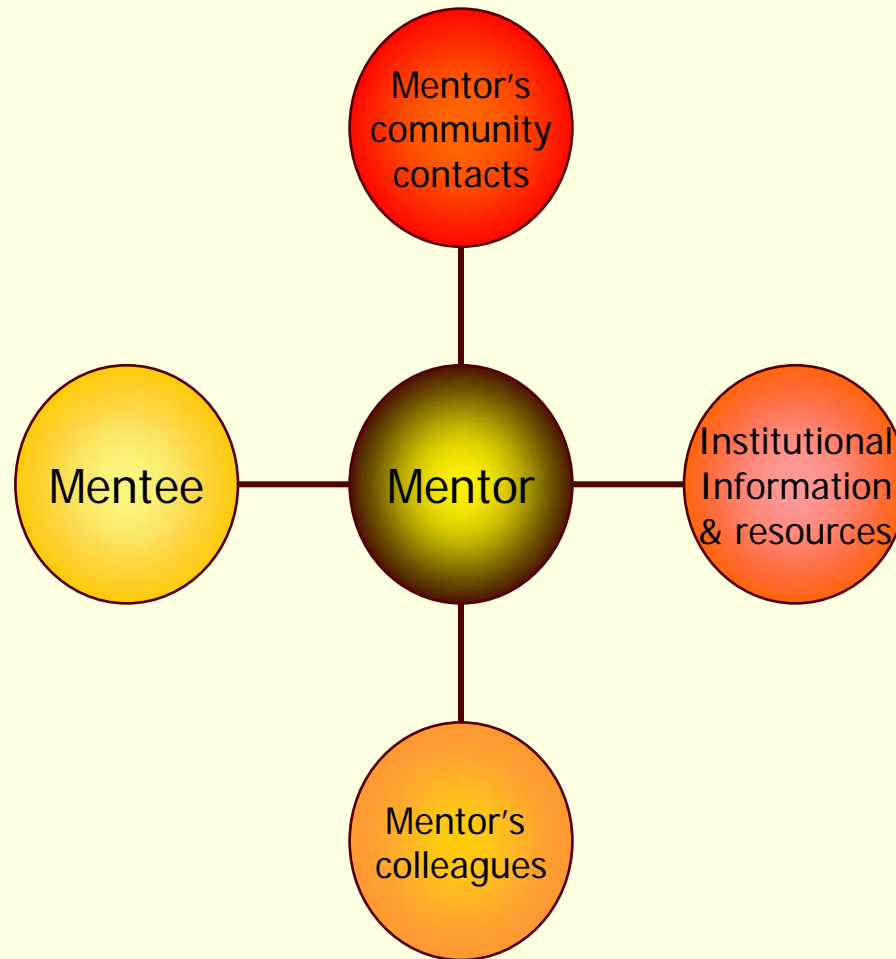


Mentoring as a Key Transformative Strategy at NMSU

- Mentoring encourages the development of social ties
- It doesn't "look" like a gender-based approach
 - Kanter 1977: warns us to avoid "boundary heightening"
- **Relationships** – nurturing vs. competitive
- **Approach at NMSU:**

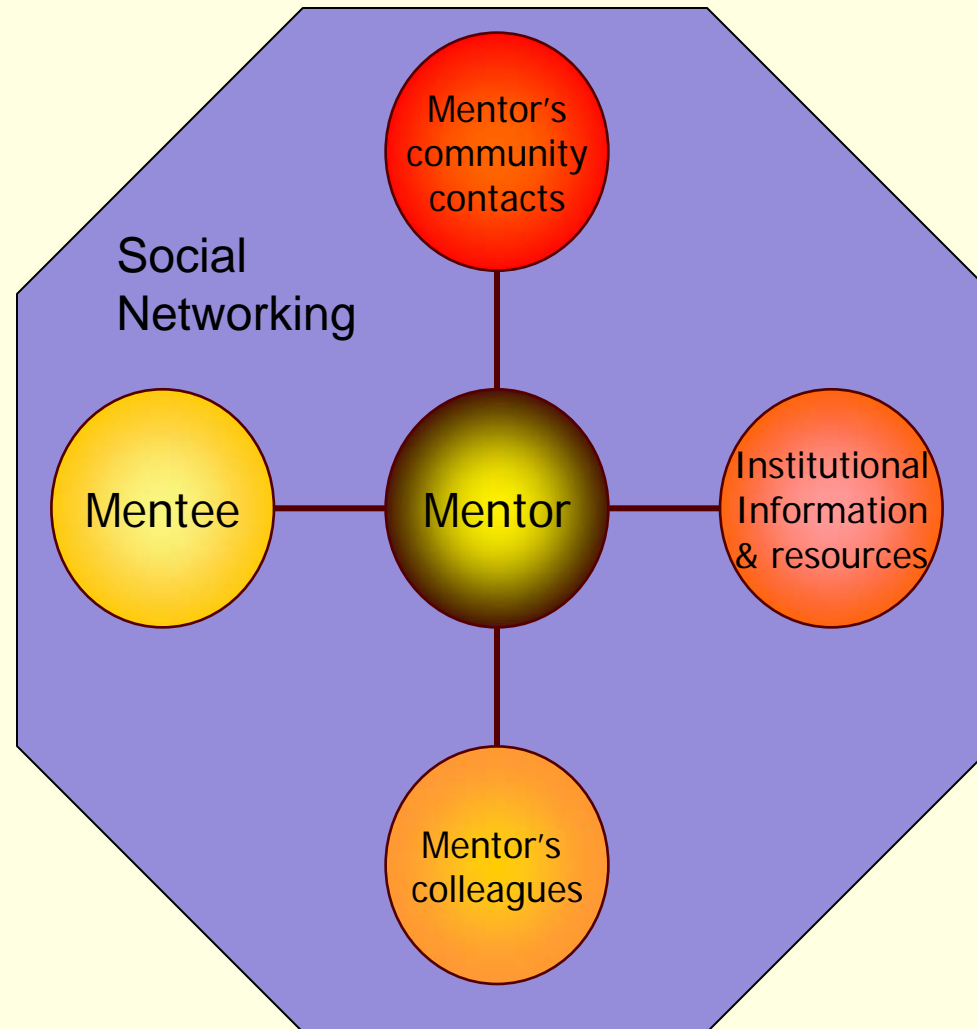
Multiple Mentoring Model

(1) Connect mentees to mentors who are more central and have denser social networks



(2) On-campus on-going events

Create a larger community of mentors and mentees.



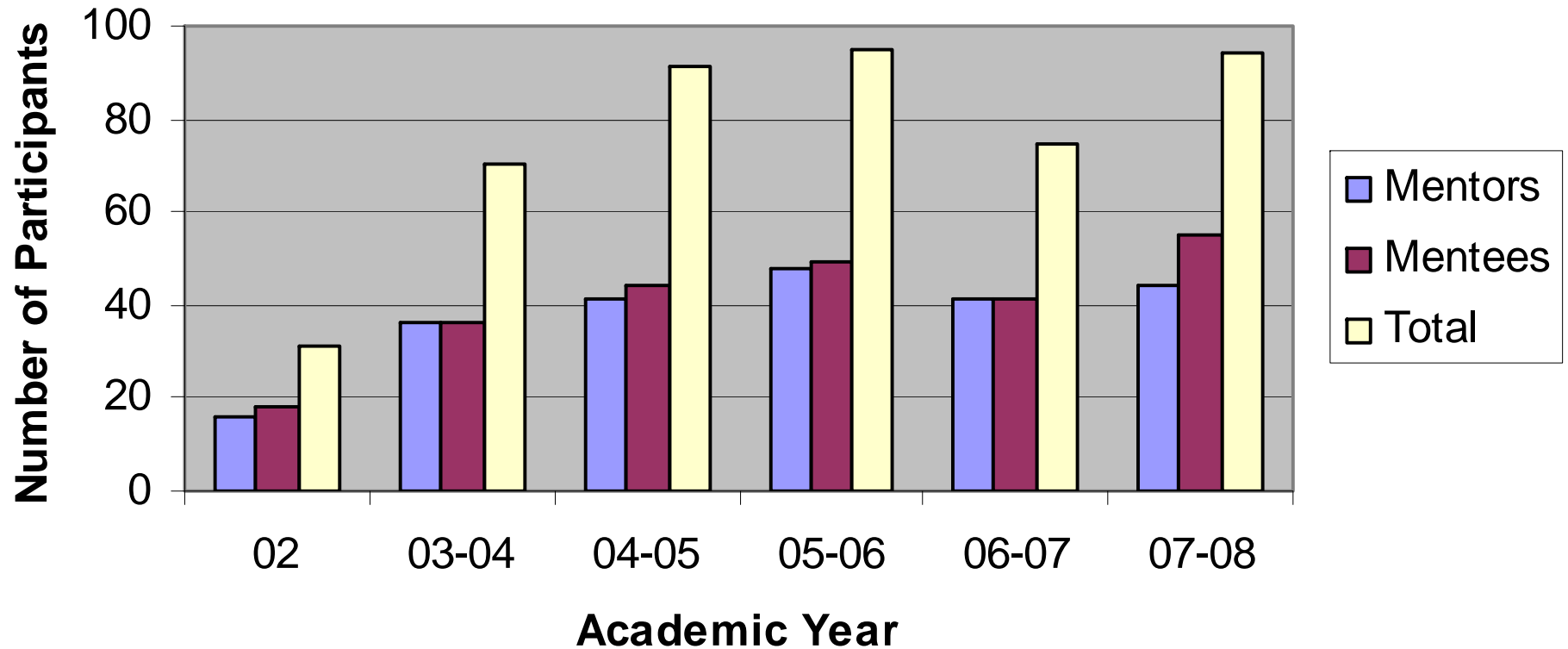
Programmatic Practices

- Make mentoring normative
 - Practice: paired ALL new STEM faculty with mentors outside their department, but within College.
 - Invite senior faculty and administrators to participate
 - Incorporated mentoring into leadership development programming

- Encourage interactions
 - Practice: pairs complete agreements
 - Practice: facilitated group interactions
 - luncheons, assigned seating, table topics—not always with speaker
 - mixers, dinners, picnics, open houses

- Training: mentors
 - Share best practices and hints
 - Increases connections among people with a positive orientation to mentoring
 - Encourage non-hierarchical practices
 - Gender and ethnic equity issues

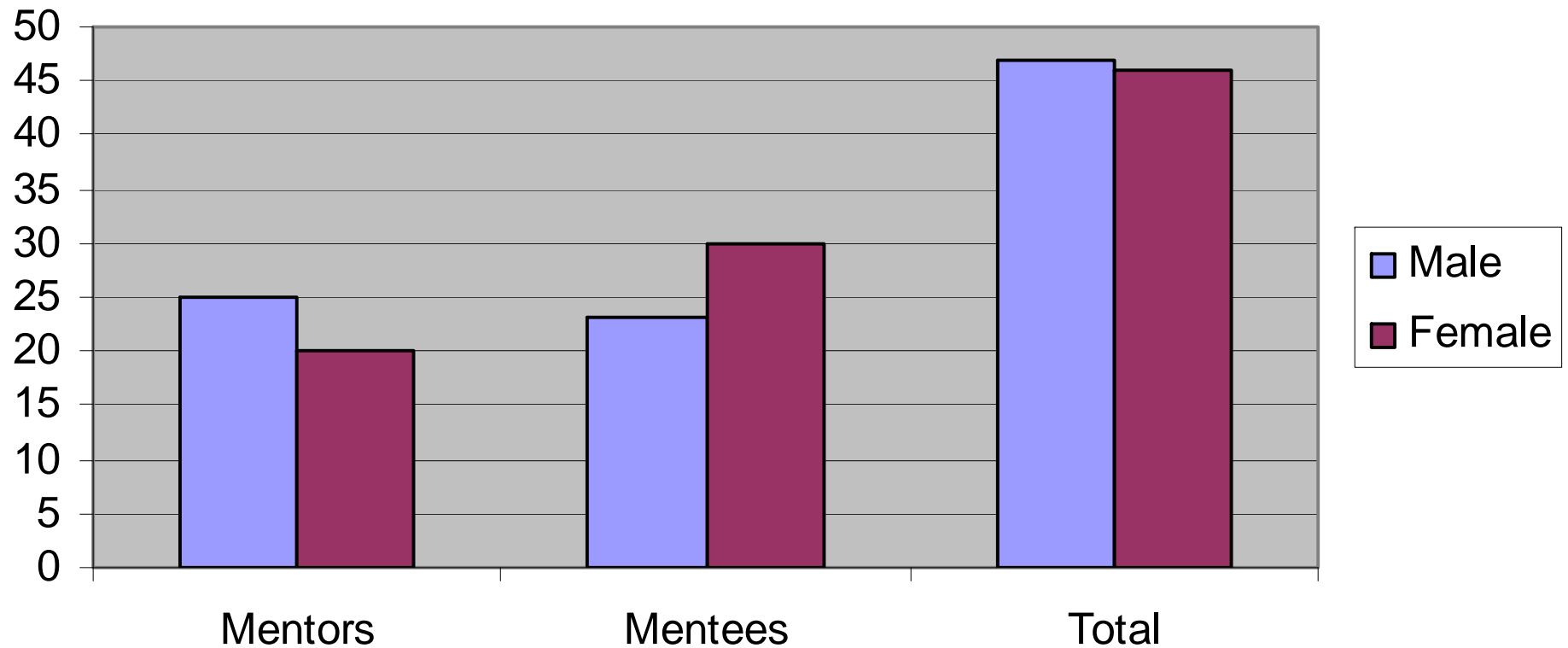
NMSU ADVANCE Mentoring Participants 2002-2008



- 32% of male STEM faculty and 93.2% of all female STEM faculty have participated
- Nearly 100 participants in regular mentoring program and 15 per year in the ADVANCING Leaders leadership mentoring program
- NMSU is expanding to include all Colleges

Mentors/Mentees by gender - NMSU

Gender Distrubution of Mentors and Mentees



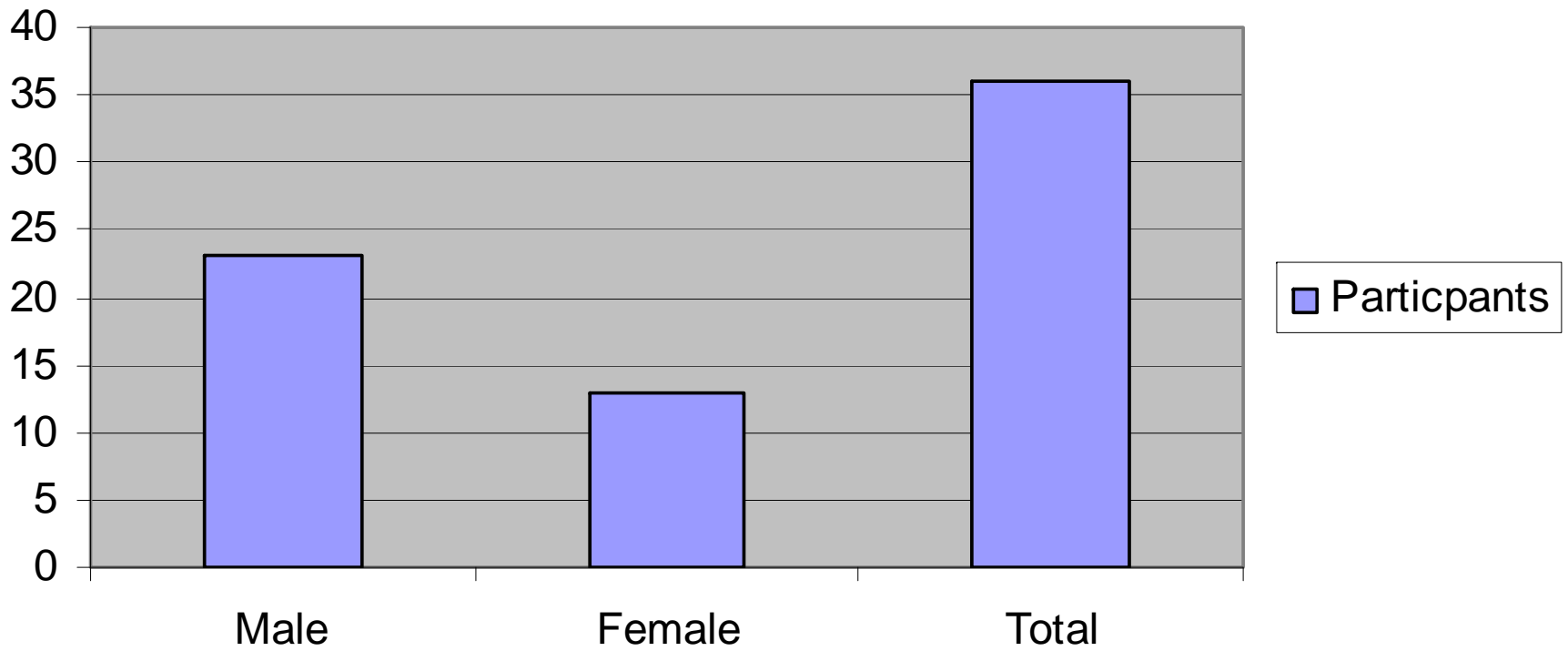
Intended outcomes of mentoring

- Increased research productivity
 - Publications, presentations, grant applications
 - Students
- Research collaborations
- Lower sense of isolation
- Stronger attachment to community
- Higher job satisfaction
- Increased efficacy in obtaining resources
- Reduced likelihood of leaving
- Career advancement

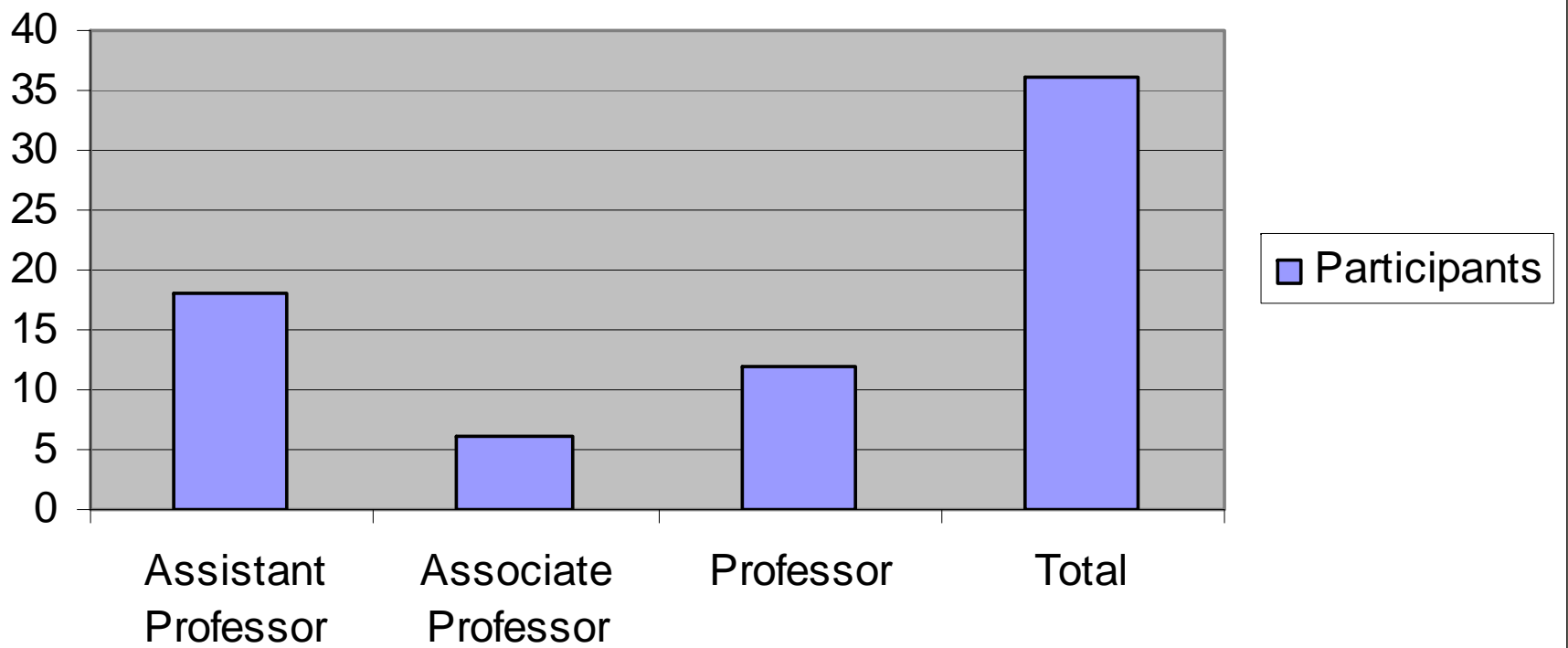
New Mexico Tech (NMT) approach

- Alliance for Faculty Diversity: diverse committee
 - Administrators, faculty all ranks, gender/ethnicity
 - Advice on pairing, plan events, plans to work on Family-Friendly Policies
- Has targeted all 13 of their Departments
 - 12 STEM, 1 Humanities
- Currently has 18 pairs
 - early-career paired with mid/late-career faculty
 - surveys to mentors/mentees in progress

NMT Gender Distribution of Participants - 2007-08



NMT Rank Distribution of Participants - 2007-08



NMT approach

- Events:
 - Fall lunch sponsored by VP for Student & University Relations
 - Spring mentoring social at Dean's home
 - Shared events with PAID partners:
 - Shared outside speaker across state:
 - Craig Nelson – Pedagogy of
 - Distance Delivered event
 - Tara Gray – “Ten Easy Ways to Manage Your Time”
- Sustainability
 - To create as a standing Faculty Senate committee

University of New Mexico (UNM)

- Alliance for Faculty Diversity Committee
 - Faculty members, gender/ethnicity represented
- Planning approach:
 - Using Mentoring report – Faculty Senate –2005
 - “Mentoring and Support of Untenured Junior Faculty at UNM”
 - Partnering with ‘Mentor Institute’
- With large size, will tailor programs to individual departments

Los Alamos National Labs (LANL)

Earth & Environmental Sciences Division

- Alliance for Faculty Diversity Committee
 - Group Leaders, Team Leaders, gender/ethnicity representation

- Team mentoring approach:
 - Six research groups (i.e. Departments) with the Earth & Environmental Division (i.e. College)
 - Focus on Post-docs many of whom become research staff
 - Two to three senior research staff will mentor 3-5 postdocs to rotate and learn about four core issues

- Four Core Themes identified:
 - CV writing, networking, grant writing, conversion to staff