

NIH Scientific Workforce Diversity Seminar Series

#SWDSS

Identifying Resource Needs for Cohort Recruitment and Professional Development

Thursday, February 24, 2022

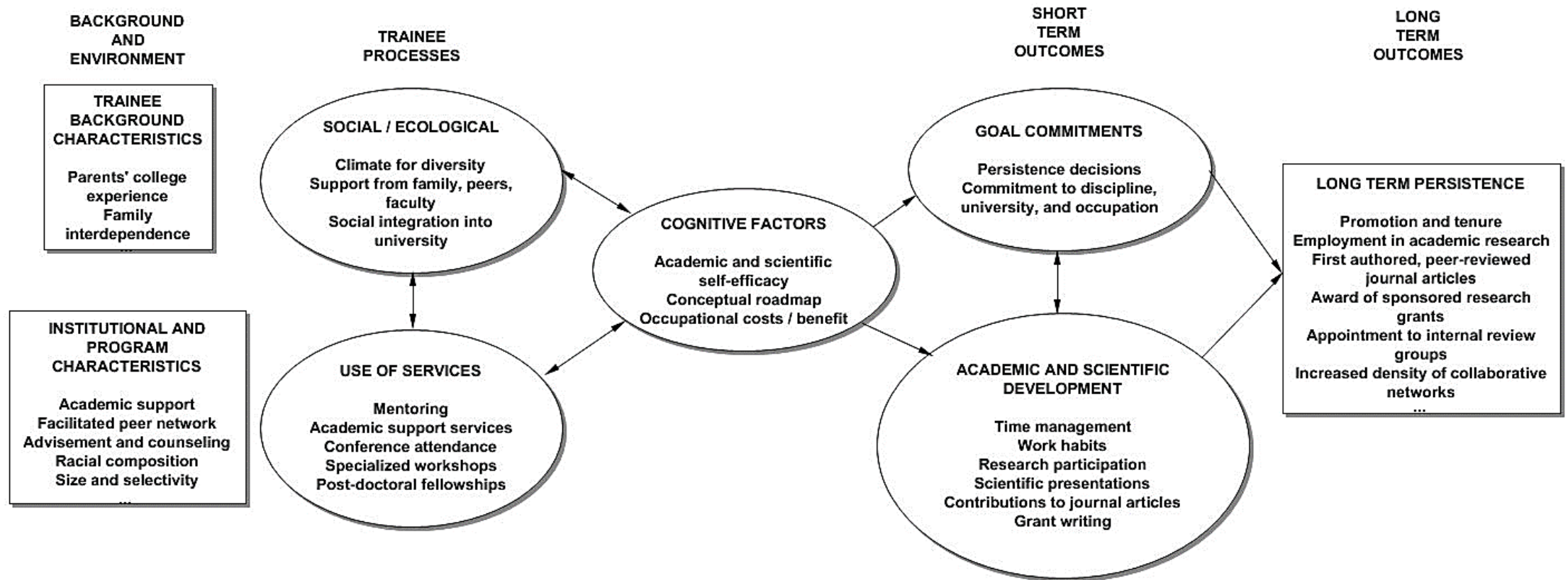
#SWDSS

Building and Sustaining a Learning Community of Native Scholars

Spero M. Manson, PhD

Centers for American Indian and Alaska Native Health
University of Colorado Anschutz Medical Campus

Academic Persistence



Manson SM. Personal journeys, professional paths: Persistence in navigating the crossroads of a research career. *Am J Public Health*. 2009;99 Suppl 1:S20-25.

Program Examples

❑ **Native Investigator Development Program**

- Funded 1997-2022 by 6 NIH Institutes and Centers, primarily through NIA Resource Centers for Minority Aging Research
- Co-directed Dedra S. Buchwald, Washington State University and Spero M. Manson, University of Colorado Anschutz Medical Campus

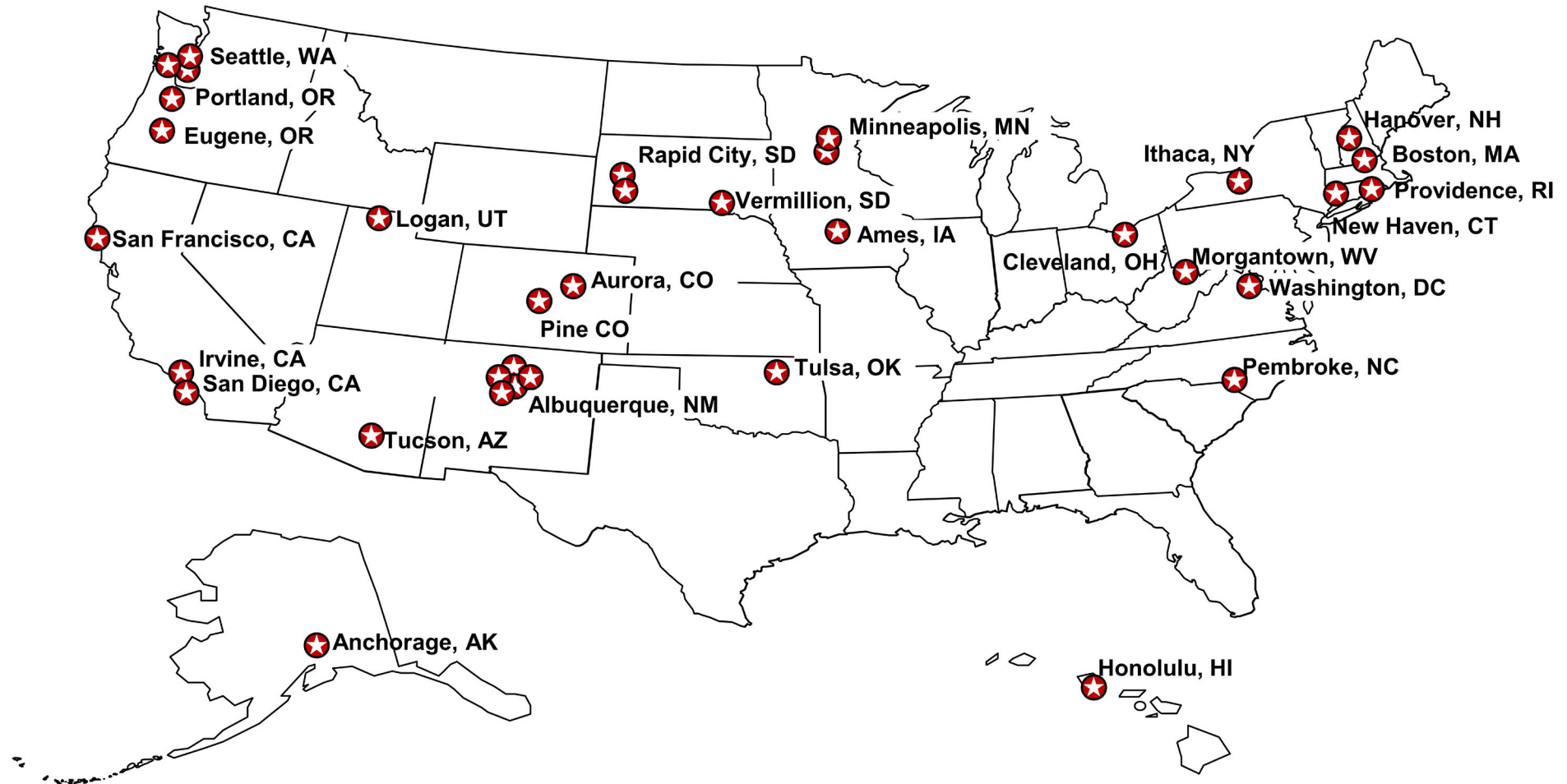
❑ **Grantwriting Uncovered: Maximizing Strategies, Help, Opportunity, Experience Program (GUMSHOE)**

- Grant Coaching Program, National Research Mentoring Network (Phase 1, 2014-2019); Center for Pacific Innovations, Knowledge, and Opportunities (PIKO), University of Hawaii (2021-2026; NIGMS)

Manson SM, Goins RT, Buchwald DS. The Native Investigator Development Program: Increasing the presence of American Indian and Alaska Native scientists in aging-related research. *J Appl Gerontol.* 2006;25(Suppl 1):105-130.

Jones HP, McGee R, Weber-Main AM, ...Manson SM, et al. Enhancing research careers: An example of a US national diversity-focused, grant-writing training and coaching experiment. *BMC Proc.* 2017;11(Suppl 12):16.

Distributed Model



Program Components

- ❑ **4 group meetings annually**
- ❑ **Focused didactic sessions**
 - Statistical techniques and procedures
 - Writing for scientific audiences
 - Proposal preparation
 - Research ethics and institutional reviews
 - Time management
 - Fiscal and personnel administration

Program Components

- ❑ **Intensive, bi-weekly mentoring interaction**
 - Primary substantive mentor
 - Secondary mentor
 - Statistical mentor
 - Science-writing mentor
- ❑ **Peer-to-peer support**
- ❑ **Secondary analyses of relevant data sets**
- ❑ **Primary data collection studies**

Investigators



Native Investigator Development Program Outcomes

- ❑ **56 American Indian/Alaska Native MDs/PhDs/DrPH/JD in 12 cohorts**
- ❑ **37 tribes and 20 disciplines**
- ❑ **91% retained over 2-year training cycle**
- ❑ **24 tenured at research universities**
- ❑ **>\$210 million in NIH and other major agency grants**
- ❑ **Principal Investigator or Co-Principal Investigator on >100 funded grants; 65 from federal agencies**
- ❑ **R01, K career awards, Diversity Supplements, foundation, state, regional, Indian Health Service**
- ❑ **550+ peer-reviewed publications**
- ❑ **2012 to 2021 31 (80%) trainees awarded \geq 1 grants**

Program Personnel



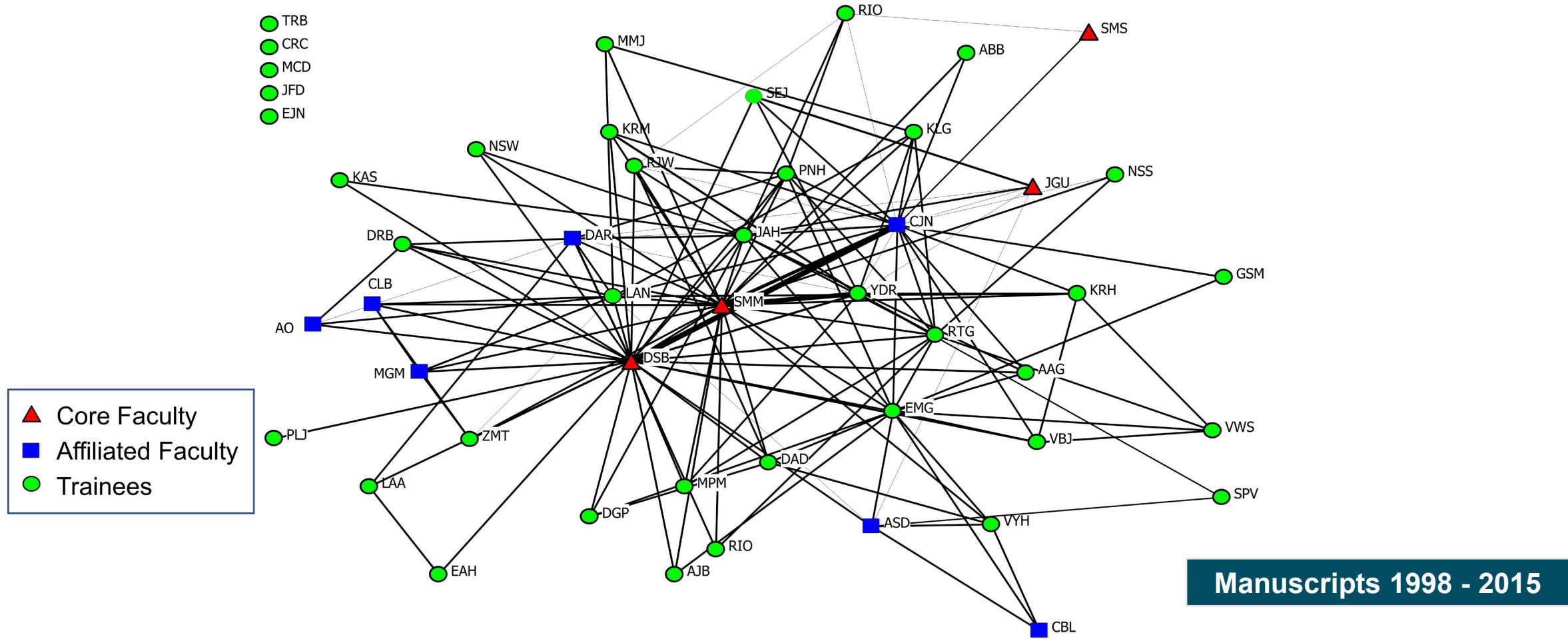
GUMSHOE Outcomes

- ❑ **101 MDs/PhDs/DrPHs over 6 cohorts**
- ❑ **92% were under-represented/rural early-stage investigators**
- ❑ **14 American Indians/Alaska Natives**
- ❑ **72% submitted research grants**
- ❑ **40% of grants submitted were funded**
- ❑ **Incorporated into numerous NIH Center Pilot Study Programs**

Gumshoe personnel



A Learning Community



Buchwald D, Dick RW. Weaving the Native web: using social network analysis to demonstrate the value of a minority career development program. *Acad Med.* 2011;86(6):778-786.

Keys to Success

Critical mentor characteristics

- NIH R01-funded**
- Native scientists and committed non-Native as role models**
- Well-published**
- Experienced in mentoring**
- Connected to, familiar with potential sponsors**
- In positions of leadership**
- Value diversity**

Keys to Success

Critical trainee characteristics

- ❑ **Promote self-reflection, perspective-taking, and *constructive* criticism**
- ❑ **Ensure adequate scientific preparation in concrete, personally relevant terms**
- ❑ **Emphasize writing skills and maximize learning opportunities**

Keys to Success

Critical program features

- Provide clarity and extensive structure regarding expectations linked to short- and long-term goals**
- Stress deadlines, accountability, and inter-locked nature of effort**
- Underscore efficiencies and time management**
- Maximize group collaboration and co-teaching as well as co-learning**

Keys to Success

Critical program features

- ❑ Demystify grantsmanship process and teach how to compete successfully**
- ❑ Help to restructure threatening or discouraging circumstances as challenges and opportunities**
- ❑ Recognize, address tensions among personal, professional, and social goals**

Keys to Success

Critical program features

- ❑ Prepare for realities of community-based partnerships**
- ❑ Offer strategies for outreach and dissemination of findings**
- ❑ Communicate value of collaborating with other institutions**
- ❑ Encourage advocacy through translation of findings into policy**

Keys to Success

Critical values

- ❑ **Being mentored is a life-long process**
- ❑ **Mentoring others is an obligation, a privilege, and a reward**
- ❑ **Recognizing that, for most of us, our trainees are our only lasting scholarly legacy**

Teamwork



#SWDSS

Acknowledgements

- ❑ Dedra S. Buchwald, MD, IREACH, Washington State University
- ❑ Grant Program Officials at NIA, NIMHD, NIAAA, NIDA, and many other NIH programs
- ❑ Mentees and Mentors
- ❑ Communities that hosted this work