

BIOGRAPHICAL SKETCH

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Professional Preparation

North Dakota State University, Fargo	Education	B.A., 1978
University of Colorado–Denver	Public Administration	M.P.A., 1990
Iowa State University, Ames	Educational Leadership and Policy	Ph.D., 2004

Appointments

1998–present	Director, Engineering Outreach and Recruitment, College of Engineering, Iowa State University, Ames
2004	Adjunct Assistant Professor, College of Human Sciences, Iowa State University, Ames
1998–2003	Doctoral Candidate and Teaching Assistant, Iowa State University, Ames Teaching Assistant, Program Evaluation and Assessment; Qualitative Research (Graduate)
1988–1994	Director of Admissions, Western State College of Colorado, Gunnison
1985–1988	Associate Director, Western State College of Colorado, Gunnison
1984–1985	Admissions Counselor, Western State College of Colorado, Gunnison
1982	Substitute Teacher, Secondary schools in School District 196, Rosemount, Minnesota

Publications

Closely Related

Bruning, M., and B. Kruthoff. 2003. Establishing purposeful K-12, collegiate, & industrial educational partnerships in math, science and technology. In *American Society of Engineering Education Final Conference Proceedings*.

Bruning, M. 2002. Why NOT engineering—Perspectives of young women and the influence of the media. In *American Society of Engineering Education Final Conference Proceedings*.

Adams, B., M. Bruning, and L. Genalo. 2000. Creating a K-12 engineering education outreach center. In *American Society of Engineering Educators Final Conference Proceedings*.

Other Significant (technical papers)

Bruning, M., J. Gilbertson, and J. Esdohr. 2004. *Agricultural and Biosystems Engineering; Materials Science Engineering; and Mechanical Engineering*.

Bruning, M., J. Gilbertson, and K. Piconi. 2003. *Discover the Many Faces of Engineering at Iowa State University*.

Bruning, M., J. Gilbertson, and K. Piconi. 2003. *Aerospace Engineering; Civil Engineering and Environmental Engineering; Construction Engineering; and Undeclared Engineering*.

Bruning, M., J. Gilbertson, and J. Eisdohr. 2003. *Computer Engineering and Electrical Engineering*.

Synergistic Activities

- Grant collaborations focused on expanding STEM pipeline and participation of under-represented groups:
 - “Potential Recruits to Engineering: A Longitudinal Study of Diverse Academically-able Young Women’s Views of Engineering as a Career”
Collaborators: Margaret Eisenhart, University of Colorado-Boulder; Jill Bystydzienski, Ohio State University
 - “Ingenieria con Acento (Engineering with an Accent)—Phase One”
Collaborators: Yanira Pacheco, SHPE Advisor /Minority Liaison Officer; Carmen Flage, Coordinator of Multicultural Student Development; Phillip Vasquez, Graduate Assistant/ Co-Director; Claribel Orellana, Event Chair, Student Chapter SHPE
 - “Society of Hispanic Engineers (SHPE) Shadow Day” (2004)
Collaborators: Yanira Pacheco, SHPE Advisor /Minority Liaison Officer; Cristina Olivas, Event Chair, Student Chapter SHPE
 - “Mother and Daughter Camp Exploring Science and Technology Careers” (2000)
Collaborator: Barbara Lograsso, Director, Program for Women in Science and Engineering
 - “Investigation Series on the Iowa Communication Network” (1998)
Collaborator: Marc Harding, Director of Admissions
- Consulting
 - ACT, Inc. (2003), Policy Report Reviewer, “America’s Future Engineers: Trends in Preparation and Diversity”
 - College of Engineering Consulting Project (2002), “Strategic Educational Partnerships between K-12 Education and Business/Industry: What Are the Common Interests?”
- Direct or oversee K-12 Engineering Outreach and Recruitment Programs (1995–present)
Over 100 annually; Programs are in collaboration with a variety of partners: Society of Women Engineers, Society of Hispanic Engineers, National Society of Black Engineers, American Indian Science and Engineering Society, American Society of Civil Engineers, American Society of Agricultural Engineers, American Society of Chemical Engineers, Science Bound, Upward Bound, Enrollment Services Offices, Iowa High Schools, and others
- People to People Ambassador Programs Education Research Delegation to China
One goal of the delegation is to develop and advance research and policy agendas addressing US technological workforce needs and education deficiencies as they relate to women and ethnic minority populations.

Collaborators and Other Affiliations

Graduate Advisees: Christi Montgomery (Principal Life); Katrice Woods (Ohio State University); Jennifer Eisdohr Assadi (Writing); Jill Walkinshaw (Iowa State University); Leah Behrens (University of Iowa); Phillip Vasquez (Current student); Johna Wolfe (Iowa State University); Gatenipa Chantem (current student); Nicole Stepleton (current student)