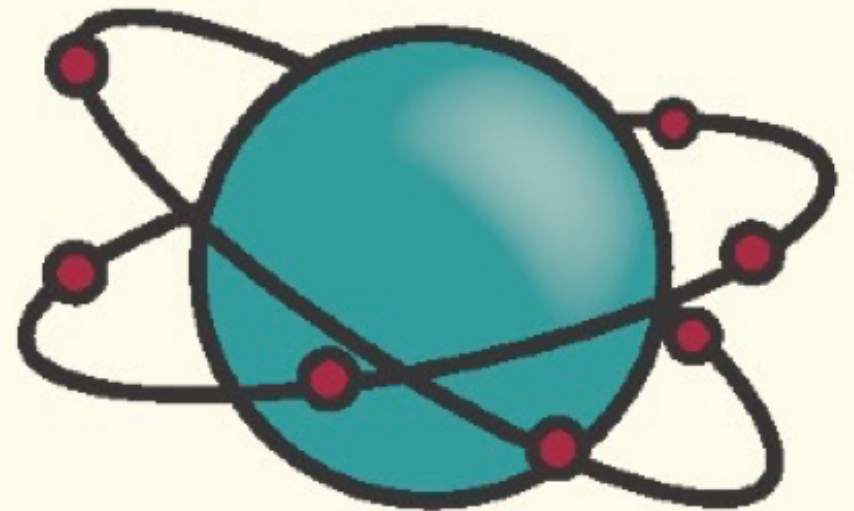


Associate Professor of Sociology
Northeastern University,
Boston

Co-Chair Seminar on Social
Exclusion and Inclusion, Minda
de Gunzburg, Center for
European Studies, Harvard
University

WOMEN IN GLOBAL SCIENCE



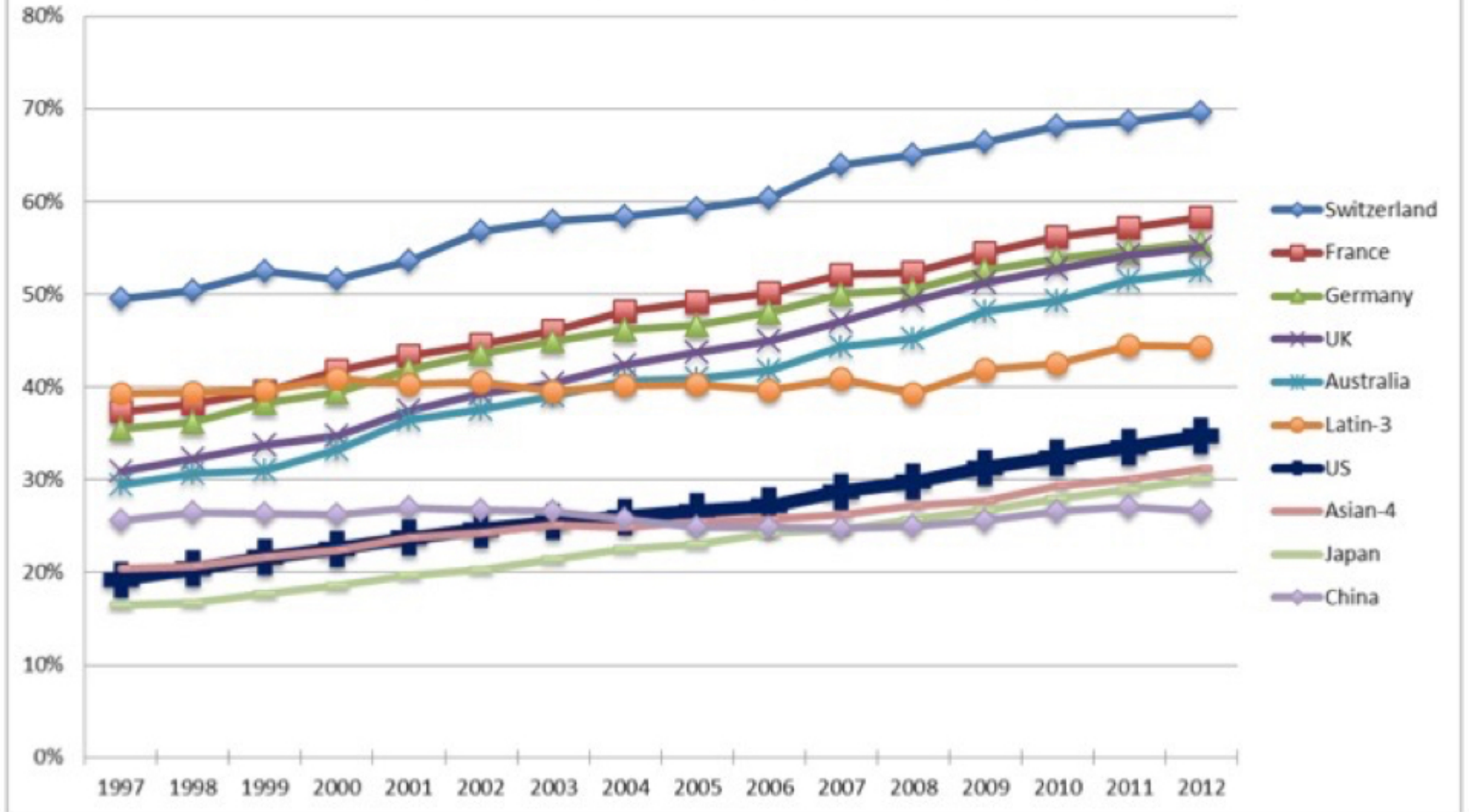
Advancing Academic Careers
through International Collaboration

KATHRIN ZIPPEL

What International Collaborations have you Participated in?

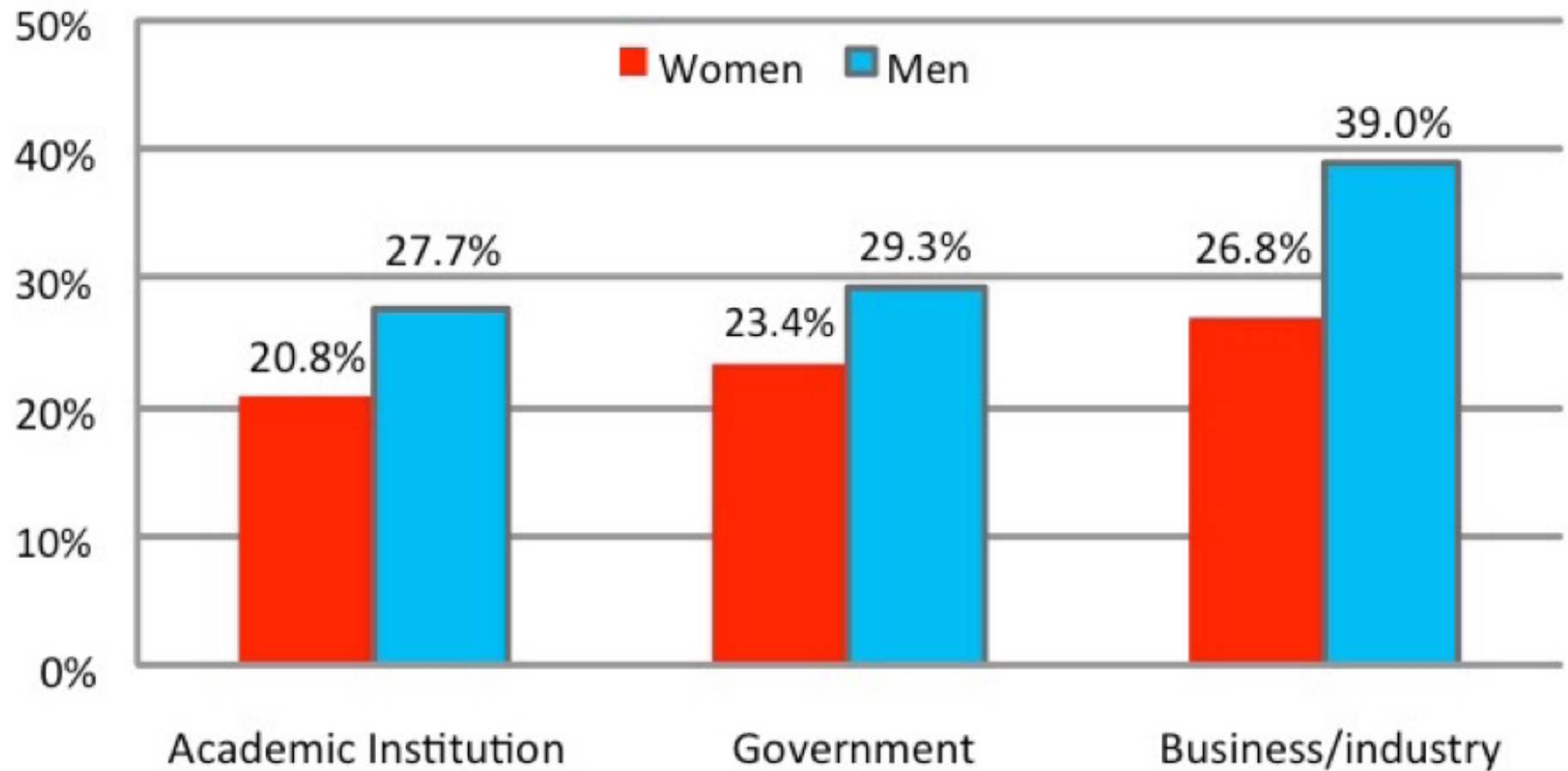


International Co-Authorship of Science & Engineering articles, by region/country: 1997–2012



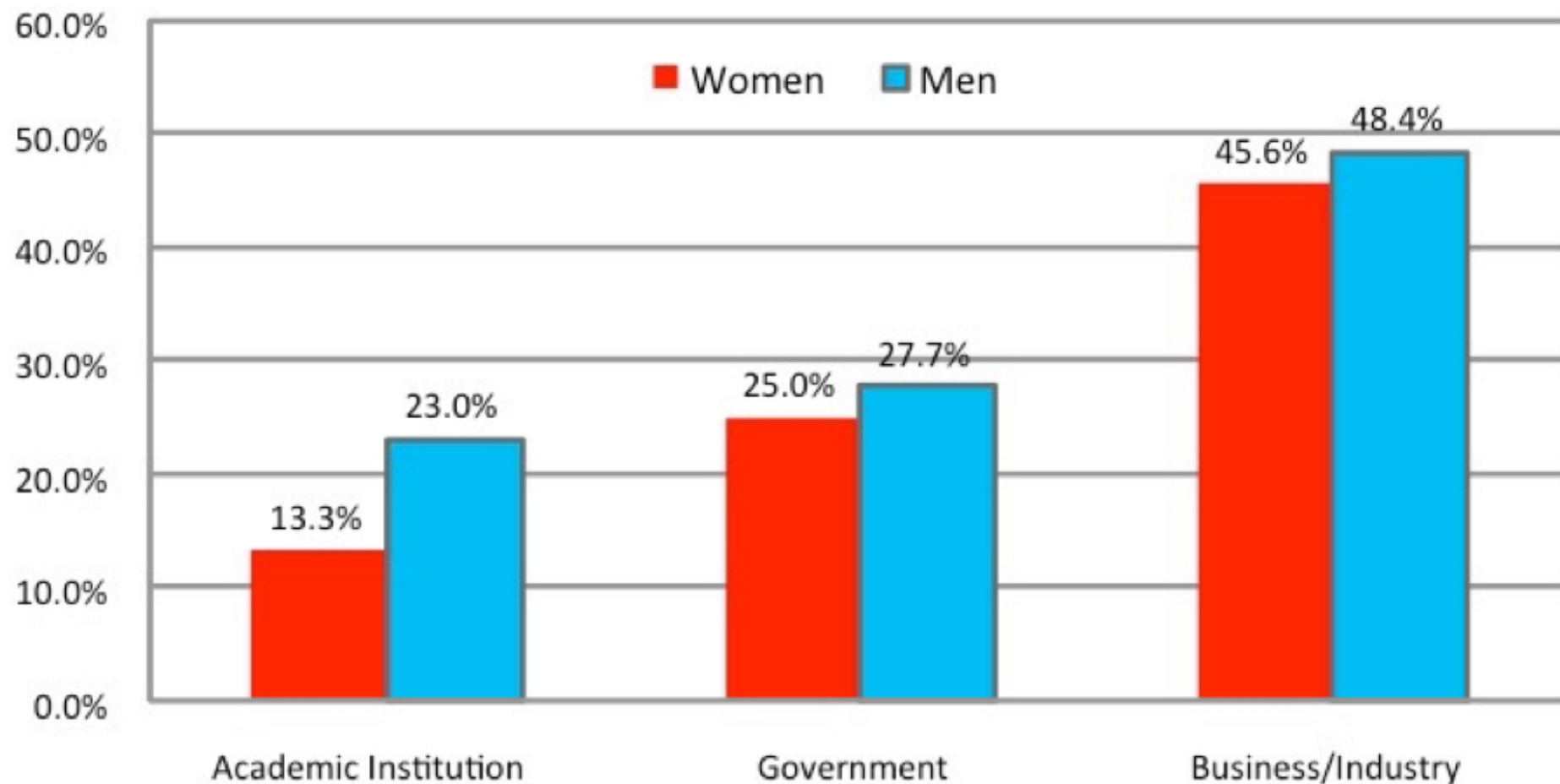
SOURCE: National Science Board, *Science and Engineering Indicators*, 2014

International Collaboration by Employment Sector of U.S. Scientists and Engineers



NSF: Survey of Doctorate Recipients, 2006

International Collaboration of U.S. Doctoral Degree Holders Chemistry



NSF: Survey of Doctorate Recipients, 2006

Research Question

- **How do gender (equity) and diversity matter in international research collaboration?**

Global Science = New Frontier

- **.edu Bonus**

- Avoid exclusionary networks
- More access and recognition abroad than at home



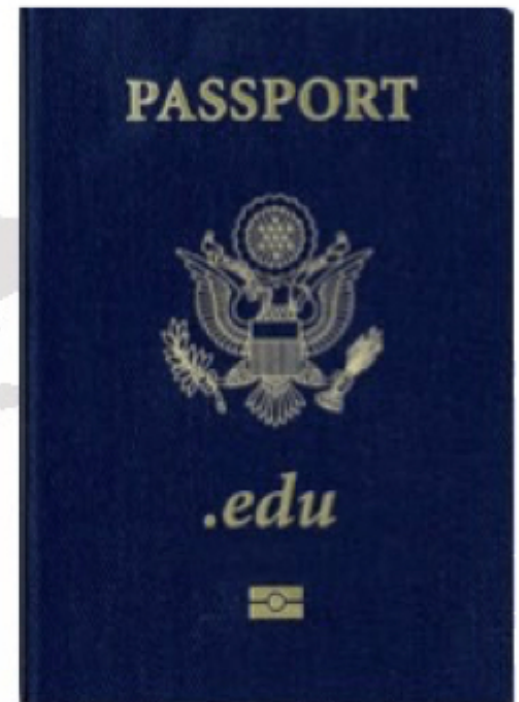
- **Glass Fences:**

- Amplification of Burdens



The .edu Bonus

- **Status of U.S. Scientist:**
highly competent, well trained,
highly qualified
 - **Gender Status:**
Cultural beliefs of women's lack of
competences in mathematics,
logic and leadership
- => U.S. status overshadows gender status**



Glass Fences



- Like Glass Ceilings invisible & gendered
- (Gendered) Stratification and Organization in Global Science

=> Amplification of Gendered Obstacles

1. What are the Benefits of International Collaboration?

- Oneself
- One's students, team, lab
- One's department
- College
- University
- Country
- Region
- World

Departmental Benefits

- International **visibility**
 - Internationally co-authored pubs get cited more
- Recruiting top international talent (graduate students & postdocs)
- International funding sources
- Intercultural competences

Individual Career Benefits

- Highlight in one's career
- Finding collaborators
- Innovation
- Increasing citation counts
- Expanding academic & social networks

Representing US science

- Attractive collaboration partner
- Perceived as gold standard of science



**2. What are key hurdles to engage
in international collaboration for
women/minorities?**

**3. What can you do?
As chairs, a university, an organization**

Fences for Everyone

- **Finding collaborators** (Social capital)
- **Academic capital** (status & reputation)
- **Funding**
- **Time**
- **Staff** to help with travel, visa, bureaucratic rules, federal regulations etc.
- **Cultural capital** (Language & Cultural)
- **Local conditions:** Politics, safety, access, feasibility etc.

Conclusion

- Fences exist that make it harder to engage in international collaborations
- **Glass fences** for women amplify hurdles that exist at the local/national level
- ⇒ Consider equity & diversity in internationalization strategies
- ⇒ Internationalize tools for equity & diversity



What Institutions Can Do:

Internationalize gender equity & diversity policies
& Consider gender & diversity in internationalization

- Inclusive strategies
 - Enhance research funding
 - **Flexible supports** depending the particular situation of individuals!!
 - Support child care **and** care of others
 - Institutionalized co-operations among institutions
 - Build cultural competences, language, admin. supports
- Provide resources to host collaborators

Glass Fences

- All of the fences apply but ***amplified***
- Local/national obstacles => amplified globally
- Examples
 - Overburdened with teaching & service
 - Less access to administrative staff
 - Marginalization in networks
 - Tacit knowledge about funding etc.
 - Less \$\$\$ in overhead accounts
 - Lack of cultural capital

What keeps Women from IRC?

1. Family Myths

- Women have family commitments and can't travel
- Yes, glass fence – but active fathers want to see their children, too!

2. Sexual Harassment Myths

- International travel is dangerous for women

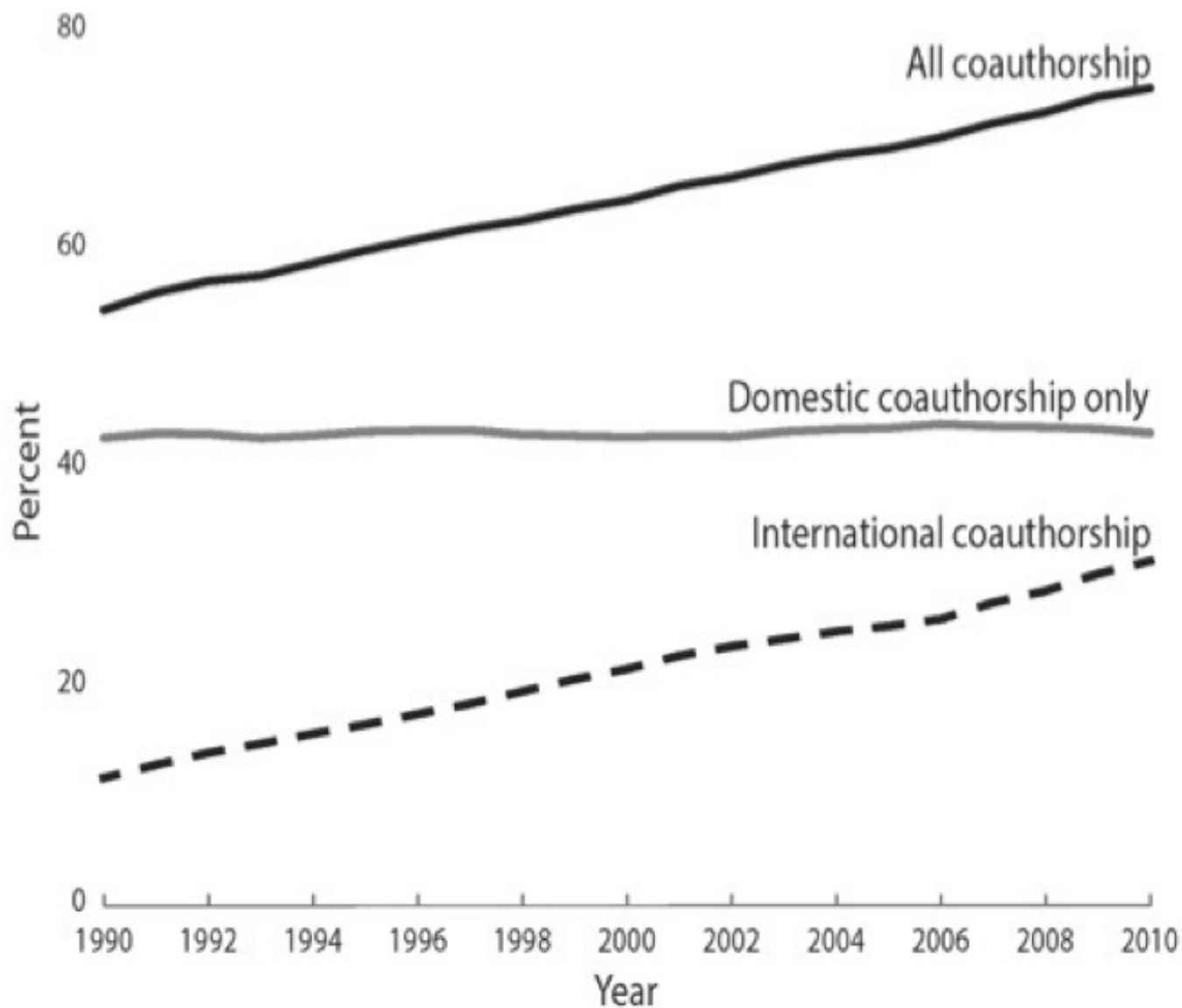
Strategies

- **“Marriage” model:** pick collaborator & develop projects together
- **Extra expenses** for students/postdocs travelling with them
- **Extra costs** for staying in “safe” spaces
- Using **private funds** to pay for extra costs of child- or elder care

Action Steps

- **Talk to the women** professors, postdocs, graduate students in your department
- Ask them how they think of international engagement
- Find out what do they need to engage in international collaboration?
- Check merit/ T&P criteria:
 - How does your unit value/recognize internationalization efforts?

Co-authored U.S. S&E Articles



Is there a Gender Gap in International Collaboration?

- **Gender Gap in any Collaborations:** (Bozeman and Corley 2004; Steffen-Fluhr 2006; Sonnert and Holton 1995; Fox and Mohapatra 2007)
 - **YES:** Women have less international co-authors, and are less internationally mobile (Elsevier 2017; Larivière et al. 2013; Abramo, D' Angelo, and Murgia 2013; Padilla-González et al. 2011; Jöns 2011; Leemann 2010. Larivière et al. 2011; Leemann 2010; Ackers 2004; Kyvik and Teigen 1996)
 - **NO:** Significant gender difference/preference in international collaborations (Bozeman, Fay, and Slade 2013; Cummings and Finkelstein 2012b and 2012c; Bozeman and Gaughan 2011; Melkers and Kiopa 2010; Costas and Camus and Michalczyk 2013)
 - **No gap but gendered patterns:** Visser, Uhly, and Zippel (2017); Cañibano, Fox, and Otamendi (2015); life course (Ackers 2004);
- => Mixed results**