NSF Core Program Research

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The Career Trajectories of Urban Math Teachers from a Selective Alternative Certification Program

• **Quantitative Look** at Retention of 620 Math Teachers in First School, District, and Teaching

• **Mixed-Methods** Look at Their Career Trajectories (n = 374)
  • Very Selective College => Urban Math Teaching => Launch an Education Non-Profit
  • Professional Career => Urban Math Teaching => Retirement
  • Less Selective College => Urban Math Teaching => Principals

• **Qualitative Look** at Alt Cert Math Teacher Experiences in Urban Schools, Instruction, and Career Trajectories (n = 9 + 21)
NSF Research Proposal Advice

• Which NSF Strand? DRK-12, Core, Etc...
  • Theoretical-conceptual focus versus a (program) evaluation focus

• Request and read relevant NSF-funded proposal narratives.
• Start writing early. Depending on maturity of your ideas.
• Seek critical feedback early and often.
• Once things crystalize, reach out to NSF officers in your area of interest.
• Start the data collection and analysis to include initial results.
• Narrative should be focused and coherent – Less can be more.
  • I wouldn’t work on multiple proposals personally but people do...
• Collaboration good but good to have clear roles.
• Everybody should look at budget narrative even if one person writes it
Program Effects on Retention

**Selection**
- College Selectivity
- Math Background
- Race
- Insider Status

**Training**
- Four Universities
- Two Cohorts
- Two Certifications
- Clinical Fieldwork

**First Schools**
- Students
- Teaching Staff
- Leadership
- School Climate

**Induction**
- Mentoring
- Seminar
- Planning Time
- Time

**Turn-over**
Initial Results from Retention Study

• Selection
  • College Selectivity and Race
  • Select Local Talent

• Training
  • Subject-specific with a focus on cultural competence
  • Clinical field experiences with modeling of alternative to trad teaching

• School Placements
  • Quality of Teacher Colleagues
  • Principal Support (versus Principals as Effective Managers)

• Induction
  • Amount of Mentoring
  • New Teacher Seminars
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• For NSF Related Stuff
• For Draft Retention Paper and Results
• For Math Ed at University of Maryland
• For MSMaRT Teacher Prep Program