New York Space Grant
Community College Partnership Program

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Goals

● Increase the number of women & minorities completing their STEM degrees and/or transferring to four-year colleges for STEM
  ➤ Build their sense of belonging by immersing them in the research environment
  ➤ Mentoring, CC faculty support
  ➤ Prep course: Methods of Scientific Research
  ➤ Remove as many other barriers as we can
    • Scholarships, fellowships, travel support
Context & history

- NSF PAARE program
  - Partner CUNY (MSIs, CCs, undergrad insts.) with AMNH & Columbia (research insts.)
  - Grew from very successful and long-running AMNH/CUNY REU program, augmented by NYSG...
Context & history

- CUNY/AMNH REU
  - Many of our students were not:
    - up to that nationally competitive level research-wise
    - as comfortable in that working environment
    - advanced majors
  - AstroCom NYC was created to change that

- The REU program grew quickly and became very welcoming and inclusive anyway!
- Expanding to all STEM and throughout NYS was an incredible opportunity to build
Methods of Scientific Research

- Spring semester before summer research
- Scientific, analogical, and proportional reasoning; basic computer skills; data quality judgment; fundamental data analysis; statistics; data modeling
- The NYSG CCPP sponsored faculty workshops to foster local implementations of the MSR
  ➔ AMNH; CUNY BMCC, SUNY Onondaga, Fulton-Montgomery, Corning, Suffolk County
Methods of Scientific Research
Mentoring

● Career
  ➤ Academic advisement & transfer assistance
  ➤ Career models, peer counseling
  ➤ Scholarship and other info
  ➤ Longitudinal support

● Research
  ➤ Summer & sometimes academic year research

● Local, plus overseen & contributed to by project administration and NYSG affiliates
Year 1

- 13 diverse STEM majors, mostly CUNY
- Summer research around the country
  - In the City & at NASA Centers (AFRC, GSFC, GISS)
  - Black hole binaries, Martian glider, OLEDs, marsh sedimentation, lunar cubesats, apps for blind, etc.
- Two MSR sections, and 2 faculty workshops
- All students successfully transferred to Columbia, Michigan, Texas A&M, Rutgers, SUNY, CUNY...
Year 1
Year 2

- 25 diverse STEM majors, majority upstate
  - Improved demographics: 52% women, 72% URMs
- Summer research was a resounding NYSG partnership success
  - NASA GISS, RPI, Berkeley, NJSG
  - NYSG affiliates including industry
- *Four* MSR sections throughout NYS
- 6 CC faculty directly supported by NYSG CCPP
- Over half now transferred to four-year schools (Clarkson!), the rest expected this year.
Year 2
Year 3...?

- Could readily recruit another 15 diverse STEM majors from our now vast & well established network of dedicated & engaged CC faculty
- Add more upstate & CUNY MSR sections, with credit-bearing status
- Connect more marginalized students with NASA STEM opportunities for which they are well qualified
- Facilitate innovative & supportive CC faculty
NYSG CCPP - thank you

• Questions and discussion