



AGEP
Alliances for Graduate Education and the Professoriate

AGEP Pilot Impact Study

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The Study Goals

- AIR sought preliminary answers to 3 questions:
 - What is the impact of AGEP, as measured by Ph.D. completion rates at designated AGEP sites compared to national trends?
 - What are the demographic backgrounds of the students participating in AGEP in the two Alliances?
 - What factors contribute to successful AGEP implementation within and across Alliances?

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Methodological Approach

- Week long site visits to the 2 Alliances
 - **North Carolina OPT-ED**
 - *North Carolina A&T University, University of North Carolina at Chapel Hill, North Carolina State University*
 - **Michigan AGEP Alliance**
 - *Michigan State University, University of Michigan at Ann Arbor, Wayne State University, Western Michigan University*
- Student Survey & Interviews and Focus groups with Administrators, Faculty and Students
- Analyses of extant data – SED, IPEDS, AAAS/Campbell-Kibler

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Overview of North Carolina Alliance

- Three partner institutions (AGEP funded)
 - North Carolina A&T University
 - University of North Carolina at Chapel Hill
 - North Carolina State University
- Numerous North Carolina institutional partners (AGEP unfunded, but participate in AGEP activities)
 - Center for Research Excellence in Science and Technology (CREST)
 - Historically Black Colleges and Universities—Undergraduate Programs (HBCU-UP)
 - NC Louis Stokes Alliance for Minority Participation (NC-LSAMP)
 - NC Mathematics and Science Education Network, Pre-College Program (NC-MSEN)
- Umbrella Alliance office
 - Physically located on UNC-Chapel Hill campus
 - Facilitates cross-campus communication
 - Facilitates statewide participation in NC Opt-Ed Day
 - Houses the Alliance in-house evaluation team
- No primary institution among the three major institutions
- Each institution has control over its own budget

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Overview of Michigan Alliance

- Four partner institutions (AGEP funded)
 - Western Michigan University
 - Michigan State University
 - Wayne State University
 - University of Michigan
- One institution serves as the lead institution
 - Distributes funds
 - Appears to have largest staff
 - Alliance coordinator housed on primary campus
- Strong relationship among alliance institutions

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AGEP Leadership Findings

- AGEP leaders have deep knowledge about the program and are enthusiastic about its goals.
- Dean leadership as PIs gives additional leverage to the alliances.
- Interviewed faculty are committed to AGEPs goals but did not necessarily know the program well.

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Aggregate Portrait of AGEP Graduate Students – MI & NC

- 94% of surveyed students were U.S. citizens
 - 25% in North Carolina were children of immigrants
 - 15% in Michigan were children of immigrants
- About 75% of the surveyed students were African American
- 46% of fathers and 55% of mothers had either a college degree or graduate degree

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Aggregate Portrait of AGEP Graduate Students – MI & NC

- African American AGEP students - educational backgrounds of their parents were higher than those of parents of most African American graduate students nationally.
- Higher percentages of the AGEP students reported receiving financial support from their universities than is the case for the average graduate students from the same racial/ethnic backgrounds.

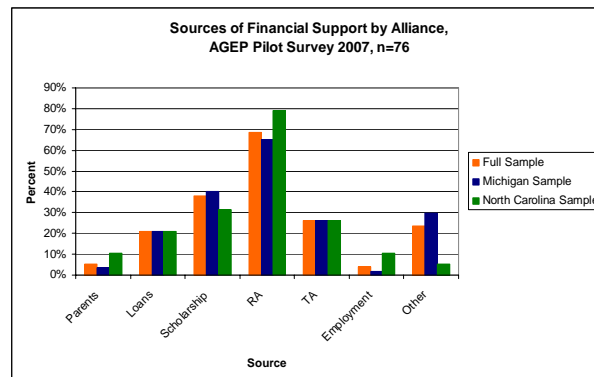
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Aggregate Portrait of AGEP Graduate Students (cont)

- 62% of the NC AGEP students had earned their bachelors degrees within the Southeastern states.
- 31% of the MI AGEP students had earned their bachelors degrees within the Great Lakes or Midwestern states.

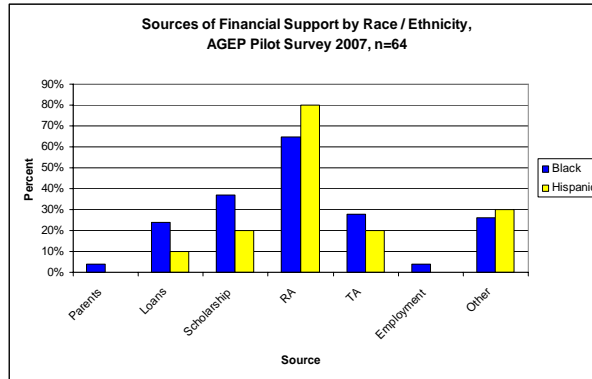
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Source of AGEP Graduate Students' Financial Support, by Alliance



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Sources of AGEP Graduate Students' Financial Support, by Race



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AGEP Students' Career Goals

	Michigan	North Carolina
Academia	72%	63%
Industry	55%	55%

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Student Survey Summary

- Most AGEP students are considering academic careers. 75% of Michigan students and 66% of North Carolina students are doing so.
- Higher percentages of AGEP graduate students report receiving financial support from their university than is the case nationally.
- AGEP students report shorter expected time to degree completion

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AGEP Students' Career Goals (cont).

	African American	Hispanic
Academia	66%	90%
Industry	50%	40%

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Obstacles to Recruitment

- Significant competition between Alliances for a small number of students
- Some campuses have an unfavorable geographic location
- Competition from the private sector
- Faculty ambivalence about students pursuing academic careers
- Inadequate preparation of some students

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Obstacles to Recruitment (cont).

- Undergraduate research experiences makes the undergraduate more attractive to competing campuses.
- Changes in the political climate about race-conscious recruiting has stymied some recruiting efforts.
- Delays in receipt of NSF funding have hindered some recruitment plans.

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Retention Practices

- Cross-campus seminars and talks for students
- Designated faculty and staff advocates for AGEP students
- Modification of structure/requirements of the graduate program (e.g. qualifying exams).
- AGEP funding for student career development and financial shortfalls.

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Challenges to Student Retention

- Students face financial hardship and industry is an attractive lure.
- Students confront challenging demands in their academic programs.
- Students confront notable cultural changes between their undergraduate experience or the workforce and the graduate experience.

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Enrollment and Completion Trends

- Overall Ph.D. degree production rates at all Michigan and North Carolina schools are increasing.
- In the aggregate, graduate enrollments of underrepresented minorities in these are below those of national averages.
- AGEP graduate students generally reported shorter expected time to degree completion than the national average for degree completion for students from their racial/ethnic backgrounds.

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Institutional Level Trends

- Several of these institutions are among the top ten nationally in producing African American PhDs.
 - University of Michigan is ranked 2nd
 - Michigan State is ranked 5th
 - North Carolina State is ranked 6th
 - University of North Carolina-CH is ranked 8th
 - The University of Michigan is the 4th largest producer of Native American PhDs and the 12th largest producer of Hispanic PhDs

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Ph.D. Production Rates are Increasing - Michigan

- Doctoral completion at the Michigan Alliance highlight the volatility of short-term trends in Ph.D. completion across all disciplines at the Michigan universities, i.e., the number of Ph.D. degrees completed at the Alliance institutions fluctuates from year to year.
- Despite the uneven trend line, completions of Ph.D. degrees are trending upward at all four Alliance institutions. The University of Michigan, in particular has a noticeable growth in this area since 2001.


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Ph.D. Production Rates are Increasing – North Carolina

- Since 2001, the University of North Carolina–Chapel Hill has led the Alliance in both Ph.D. enrollments and completions.
- All of the institutions are trending upward over the long term in completions of Ph.D. degrees.

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Campbell-Kibler showed an overall increase in Minority STEM Ph.D. degrees at 20 AGEPS

- The number of underrepresented minority students in all STEM graduate programs increased 23.9% between 1997-98 and 2005-06.
- The annual number and percentage of Ph.D. degrees awarded to minorities in STEM fields increased by 56, or 10% in the same time period.

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AGEP Institutional Change Impact

- Creation of a cadre of AGEP support professionals, i.e., a network of people with a singular focus on minority student STEM PhDs improvement
- Creation of statewide recruitment networks
- Creation of cross-campus professional development seminars and workshops
- Extension of undergraduate and graduate support pipelines

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AGEP Institutional Change Impact

- New mechanisms of financial support for students
- Greater formalization of impromptu recruitment activities
- Modifications of graduate school requirements and program structures

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Summary of Findings

What is the impact of AGEP, as measured by Ph.D. completion rates at designated AGEP sites compared to national trends?

- Below trend enrollments yet greater than trend graduation rates suggests efficacious retention strategies.
- Greater than trend Ph.D. rates is occurring in spite of constraining political and economic climates.

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Summary of Findings

What factors contribute to successful AGEP implementation within and across Alliances?

- Tenacious, sustained leadership reinforced by a dedication to continuous dialogue and collaboration. Building success takes talking about it continuously and overtime.

- Core program management focus on mediating student success.
 - Financially
 - Academically
 - Socially