Exploring educational attainment of undergraduate minority students in Land-grant institutions

-- The FAEIS Team --

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Presentation overview

- Background
- Purpose
- Methodology
- Results
- Conclusions
- Recommendations
Educational attainment for minority and non-minority students in the U.S.

- A gap exists between the educational attainment of minority and non-minority citizens (Engle et al., 2012). In 2011,
  - 44% of Caucasian Americans held college degrees
  - 30% of African Americans and 21% of Hispanic Americans have college degrees (U.S. Census Bureau, 2011)

- Colleges of agriculture and life sciences across the country are creating initiatives to increase the educational attainment of minority students

- Previous studies have measured educational attainment using college enrollment (Garibaldi, 1997; Marchant and Williamson, 1994; Wilds, 2000)
Purpose of study

• To investigate changes in Baccalaureate enrollment among minority students in colleges of agriculture and life sciences at U.S. Land-grant institutions

• Guiding research questions:
  1. How has Baccalaureate enrollment for minority students changed over time compared to non-minority students?
  2. Is there a differentiation in minority Baccalaureate enrollment across disciplines within agriculture and life science disciplines?
Methodology

- **Quantitative study**
  - Data from Food and Agricultural Education Information System (FAEIS) database (http://faeis.usda.gov)

- **Data collection**
  - Baccalaureate enrollment for 2007 to 2011
  - African American, Asian, Hispanic, and Caucasian
  - Agricultural economics, animal sciences, and foods and nutrition programs
  - 49 Land Grant Colleges and Universities

- **Data analysis**
  - Imputation used to fill in missing data points (6.3%)
  - Conducted trend analysis using SPSS v. 20
Map of 49 Land-grant institutions included in the analysis
RESULTS
Baccalaureate Enrollment for Minority and Non-Minority Students

<table>
<thead>
<tr>
<th>Reporting Years</th>
<th>Non-Minority</th>
<th>Minority</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>36,059</td>
<td>7,930</td>
</tr>
<tr>
<td>2008</td>
<td>37,216</td>
<td>8,197</td>
</tr>
<tr>
<td>2009</td>
<td>37,374</td>
<td>8,809</td>
</tr>
<tr>
<td>2010</td>
<td>38,001</td>
<td>9,171</td>
</tr>
<tr>
<td>2011</td>
<td>37,934</td>
<td>9,621</td>
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</tbody>
</table>
Minority Baccalaureate Enrollment in Agricultural Economics Programs

<table>
<thead>
<tr>
<th>Reporting Years</th>
<th>African American</th>
<th>Asian</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>268</td>
<td>298</td>
<td>314</td>
</tr>
<tr>
<td>2008</td>
<td>314</td>
<td>336</td>
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<tr>
<td>2009</td>
<td>371</td>
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<tr>
<td>2010</td>
<td>349</td>
<td>381</td>
<td>381</td>
</tr>
<tr>
<td>2011</td>
<td>333</td>
<td>406</td>
<td>406</td>
</tr>
</tbody>
</table>
Minority Baccalaureate Enrollment in Animal Science Programs
Minority Baccalaureate Enrollment in Foods and Nutrition Programs

![Graph showing minority baccalaureate enrollment in foods and nutrition programs over years.](chart)
Conclusion

- Minority Baccalaureate enrollment is increasing at a faster rate (21%) than non-minority Baccalaureate enrollment (5%)

- Differences in minority Baccalaureate enrollment exist across agriculture and life science disciplines
  - Agricultural economics: Enrollment highest among African American students
  - Animal science: Enrollment highest among Hispanic students
  - Foods and nutrition: Enrollment highest among Asian students

- Largest rate of increase in minority Baccalaureate enrollment is for Hispanic students across the disciplines
Recommendations for practice

• Current efforts to recruit Hispanic students are effective

• Recruitment efforts should focus on the following student groups
  • In agricultural economics programs, recruit African American and Asian students
  • In animal science programs, recruit Asian and African American students
  • In foods and nutrition programs, recruit Asian students
References


Thank you.

Any questions?