Graduate Education: It’s a Great Investment

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What Does It Take to Build a Strong Technology-based Economy in Alabama?

It Takes Seven Elements:

• An intellectual infrastructure to generate new knowledge and discoveries
• Mechanisms to transfer knowledge (tech transfer)
• Physical infrastructure (high speed computing)
• A highly skilled technical workforce
• Sources of venture capital
• Quality of life
• Entrepreneurial Culture


Building Alabama’s Economic Infrastructure

All seven elements depend on Alabama’s strong commitment to graduate education and the vital research dollars that those elements bring to our state.
Academic R&D Expenditures per Capita
Alabama 2001 - 2007

Academic R&D in Alabama (2007) $655 million

Academic R&D Expenditures per $1,000,000 of GDP
Alabama 2001 - 2007

We’re training Alabama Citizens for the Requirements of the Alabama Economy

Total Graduate Students in Alabama: 26,684

From Alabama: 16,676 (62.5%)

From elsewhere: 10,008 (37.5%)

- Adjoining states 3,794 14.2%
- Non-adjoining states 2,948 11.1%
- Non-US Citizens 3,266 12.2%

(Both Masters and Doctoral students)

ACHE data: 2007
Holders of advanced degrees will be in high demand in the next 5 years

Projected Increase in Job Openings by Education or Training
United States, 2004 to 2014

- Total: 13% (18.9 million)
- Doctoral degree: 31% (594,000)
- Associate’s degree: 25% (1.4 million)
- Bachelor’s degree: 20% (3.3 million)
- Professional degree: 19% (356,000)
- Master’s degree: 19% (407,000)
Having an Advanced Degree means Higher Pay and Prosperity

Average Annual Earnings of Adults Ages 25 or Older, United States, 2005

- All: $43,400
- Professional degree: $119,300
- Doctoral degree: $93,600
- Master's degree: $68,300
- Bachelor's degree: $56,700
- Associate's degree: $39,700
- Some college, no degree: $37,100
- High school diploma or GED credential: $31,700
- Some high school, no diploma: $23,600
- Less than ninth grade: $20,300

Projected lifetime income differential vs. a Bachelor’s degree only for Masters degree recipients = $3.19 billion

Projected lifetime income differential vs. a Bachelor’s degree only for doctoral degree recipients = $0.85 billion ($4.04 billion total)

If most of the graduates who are Alabama residents were to stay in the state to work for Alabama industries and companies after graduation, over those workers’ lifetimes more than $2.5 billion of earned income would be added to the state economy for each year the current number of Masters and doctoral degrees are granted.

(Estimates are based on the number of Masters (7,974) and Doctoral (709) degree completions at both public and private universities in 2007 as documented by the Alabama Commission on Higher Education)
Michael E. Stephens (MS degree in Health Administration, 1975)

- Leader in the not-for-profit and for-profit sectors of the rehabilitation industry.
- Founded the Lakeshore Foundation
  - A well known rehabilitation center
  - Home for the U.S. Para-Olympic training
- Founded ReLife, a center specializing in recovery from brain and spinal cord injuries
- President of S Enterprises, Inc.
UAB Graduates Contribute to Alabama and Nationally

Stephen Brossette (M.D./Ph.D. – Computer and Information Sciences, 1998)

• President and Co-Founder of MedMined, Inc.
  – Developed data mining techniques to assess the frequency with which hospital patients contract infections
  – Tracks chronic infection patterns among patients at more than 90 hospitals and health care facilities in 24 states
  – Allows hospitals to detect patterns and devise remedies
  – Pioneered electronic medical data management leading to modern paradigms for Medical Informatics

• In 2002 Brossette received the Outstanding Incubator Client Award from the National Business Incubator Association
What Can You Do to Help Graduate Education in Alabama?

• Call or email Dr. Noe
  – (205)-975-8852
  – bnoe@uab.edu
### Projected Earnings Differential for Alabama MS and Doctoral Graduates – 2007

<table>
<thead>
<tr>
<th>Degree</th>
<th>total degrees</th>
<th>Projected lifetime earnings differential</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS + Post-MS</td>
<td>7,974</td>
<td>$3.19 billion</td>
</tr>
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If 62.5% of these 2007 graduates remain in Alabama after graduation:

$2.52 billion more earned in and spent in AL

Data on Degree Completions 2007 taken from the Alabama Commission on Higher Education and includes graduates of public and private universities.

Lifetime earnings differential for MS recipients: $400,000/graduate

Lifetime earnings differential for doctoral recipients: $1,200,000/graduate