Preliminary findings from the Initial Employment Survey of physics bachelor’s, classes of 2005 and 2006

● After receiving their degrees, new physics bachelors follow two main career paths: continuing their education at the graduate level or entering the workforce. In recent years, a little less than half of the degree recipients chose to immediately enter the workforce. A significant number of these individuals will enroll in a graduate program after working for a year or two. (Figure 1)

● The paths that physics bachelor’s pursue differ by the highest physics degree offered by the department from which they received their degree. Physics bachelor’s receiving their degrees from departments that also grant graduate-level physics degrees are more likely to pursue graduate study in physics than are bachelors who receive their degrees from departments where a bachelor’s is the highest degree offered. It is unclear the extent to which this difference is the result of the undergraduate experiences they had in the physics department or career goals that they had prior to starting college. (Figure 2)

● In the classes of 2005 and 2006, the majority of the new physics bachelor’s chose to immediately continue their education at the graduate level. Of them, nearly two-thirds chose to continue their studies in physics or astronomy. The balance of the students enrolled in a variety of graduate programs with engineering being the most frequently chosen field. (Figure 3)

● Physics bachelor’s who continue their education in physics and astronomy tend to be better supported by their graduate departments than the students who pursue other fields. Also, physics bachelor’s who enroll in a PhD program, regardless of field, tend to be better supported than students enrolling in a master’s program. (Figure 4)

● The private sector continues to be the single largest employer of physics bachelor’s hiring 57% of the bachelor’s who secured full-time employment directly after receiving their degree. A significant proportion (13%) of new physics bachelor’s took positions as high school teachers. Seventy percent of these new teachers indicated they were teaching at least one physics class. (Figure 5)
• Science, Technology, Engineering and Math (STEM) continue to be the most common fields in which new physics bachelor’s work. In the private sector, nearly two-thirds of physics bachelor’s work in STEM fields. A significant proportion (~1/3) of the new physics bachelor’s accepted positions in the private sector that are non-STEM related. These non-STEM jobs cover a wide variety of positions including retail sales and finance. (figure 6)

• As has been historically true, physics bachelor’s who accept employment in the private sector receive higher salaries than those who work in other sectors. Bachelor’s with employment in STEM positions are better paid than those in non-STEM positions. Non-STEM positions cover a diverse set of fields and work activities resulting in a very broad range of typical starting salaries. (Figure 7)
Initial Status of Physics Bachelor's, Classes of 2005 & 2006

<table>
<thead>
<tr>
<th>Type of Undergraduate Department</th>
<th>Graduate Study in Physics or Astronomy</th>
<th>Graduate Study in Another Field</th>
<th>Employed or Seeking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's-Granting</td>
<td>29</td>
<td>25</td>
<td>46</td>
</tr>
<tr>
<td>Master's-Granting</td>
<td>39</td>
<td>16</td>
<td>45</td>
</tr>
<tr>
<td>PhD-Granting</td>
<td>44</td>
<td>20</td>
<td>36</td>
</tr>
</tbody>
</table>

AIP Statistical Research Center, Initial Employment Survey
Fields of study for Physics Bachelors Continuing Directly on to Graduate School*, Classes of 2005 & 2006

- Physics or Astronomy: 64%
- Other: 20%
- Engineering: 16%
- Other Physical Sciences
- Law
- Social Sciences
- Life Sciences
- Computer Sciences
- Business
- Other

* Limited to Full-time Students

AIP Statistical Research Center, Initial Employment Survey
Primary Types of Support for Physics Bachelor's Immediately Pursuing Graduate Study, Classes of 2005 & 2006

Degree Program Enrolled:

Graduate Study in Physics or Astronomy

<table>
<thead>
<tr>
<th>Degree Program</th>
<th>Masters</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>45</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>1</td>
</tr>
</tbody>
</table>

Graduate Study in Other Fields

<table>
<thead>
<tr>
<th>Degree Program</th>
<th>Masters</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>12</td>
</tr>
</tbody>
</table>

Legend:
- Teaching Assistant
- Research Assistant
- Fellowships & Scholarships
- Self-Funded

AIP Statistical Research Center, Initial Employment Survey
Initial Employment Sectors of Physics Bachelor's, Classes of 2005 & 2006

Private Sector 57%
High School 13%
College & Universities 11%
Civilian government, FFR&DC* 8%
Active Military 5%
Other 6%

* FFR&DC: Federally Funded Research & Development Center

AIP Statistical Research Center, Initial Employment Survey
Field of Employment for Physics Bachelors in the Private Sector, Classes of 2005 and 2006

- Engineering: 31%
- Computer or Information Systems: 17%
- Other Technology: 7%
- Other Natural Sciences: 7%
- Physics or Astronomy: 5%
- Math: 2%
- Education: 1%
- Non-STEM: 32%

STEM: Science, Technology, Engineering and Math

AIP Statistical Research Center, Initial Employment Survey
Typical Starting Salaries for Physics Bachelor's Classes of 2005 & 2006

Employer

- Private Sector STEM
- Private Sector non-STEM
- Active Military
- High School Teachers
- College or University

Typical Salaries (in thousands of dollars)

Note: Typical salaries are the middle 50%, i.e. between the 25th and 75th percentiles. STEM refers to positions in Science, Technology, Engineering, and Math.

AIP Statistical Research Center, Initial Employment Survey