ATTENDANCE AND COMPLETION RATES

Probably the most basic fact relating to post-secondary education in recent years has been the dramatic increase in enrollment rates since 1980. This trend is shown in Figure 3.1 for two age groups of interest to the military, those age 18–19 and those 20–21. Enrollment rates in post-secondary institutions were fairly steady between 1970 and 1980. However, between 1980 and 1990, enrollment rates rose by over 25 percent, from 46.4 percent of youth age 18–19 to 57.3 percent. The increase, nearly 30 percent for the older age group, continued into the 1990s. By 1994, enrollment rates for the age 18–19 group rose to 60.2 percent, while the rates rose to 44.9 percent for the age 20–21 group.

A related trend is that a greater fraction of the U.S. population has completed post-secondary education. Figure 3.2 shows the percentage of males who have completed a four-year college between 1970 and 1995. This percentage has increased for all race/ethnic groups shown, but the most dramatic increase has been for black males. In 1970, only 4.2 percent had completed a four-year college. This figure more than doubled to 13.6 percent by 1995. Hispanics experienced the smallest growth. In part, this slower growth reflects increased immigration over the period and the shift in source countries toward southern-hemisphere Spanish-speaking countries. Since immigrants from these countries typically have less education than native-born males of similar age (Borjas, 1990; Schoeni, McCarthy, and Vernez, 1996), inclusion of immigrants in
the Hispanic group in Figure 3.2 serves to lower the attainment rate of a four-year college education for this group.

Not only is a higher percentage of youth attending a post-secondary educational institution, but the amount of education they seek has risen as well. Figure 3.3 shows the educational aspirations of the high quality youth in the YATS who said that they wanted to “go to school” in the coming year. In the fall of FY85, about 23 percent of these youth said that they wanted to go to graduate school. This figure more than doubled by the fall of FY97. Fewer youth wanted to stop with a B.A. degree or a two-year college degree.

COSTS AND FINANCIAL AID OPPORTUNITIES

The enormous growth in the real cost of attending a post-secondary educational institution has been another major trend in post-secondary education. This growth is shown in Table 3.1, which presents the average real cost of attending public and private two- and four-year colleges in 1985 and 1995. Regardless of institution type—private versus public or two-year versus four-year—the average real cost increased significantly during the 10-year period.
Figure 3.2—Percentage of Males Completing a Four-Year College


Figure 3.3—Percentage of High Quality Youth (age 16–21) with Educational Aspiration (Interest in Attending Post-Secondary Educational Institution)

Source: Youth Attitude Tracking Study.
Table 3.1

Average Cost of Two-Year and Four-Year Colleges (1998 dollars)

<table>
<thead>
<tr>
<th></th>
<th>Tuition and Fees ($)</th>
<th>Board and Dormitory ($)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1985</td>
<td>1995</td>
<td>% change</td>
<td>1985</td>
</tr>
<tr>
<td>Public:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-year college</td>
<td>879</td>
<td>1,304</td>
<td>48</td>
<td>3,345</td>
</tr>
<tr>
<td>Four-year college</td>
<td>2,085</td>
<td>3,257</td>
<td>56</td>
<td>3,781</td>
</tr>
<tr>
<td>Private:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-year college</td>
<td>5,244</td>
<td>7,500</td>
<td>43</td>
<td>4,090</td>
</tr>
<tr>
<td>Four-year college</td>
<td>10,296</td>
<td>15,851</td>
<td>54</td>
<td>5,116</td>
</tr>
</tbody>
</table>


1985 to 1995. Room-and-board costs also rose substantially for public and private four-year colleges.¹

Whether the net cost of post-secondary education to the individual has risen depends in part on whether increases in financial aid have kept pace. To see how one component of financial aid has changed, we examined the change in real average financial aid awards offered by various federal programs. On average, real federal financial aid programs have risen by less than real tuition costs, as shown in Figure 3.4. Only average federal student loan awards have risen faster than inflation, implying real growth in this source of aid. Nonetheless, even this source has not kept pace with real tuition cost growth. Note that students may combine award sources. Although we found no information regarding trends in levels of total financial aid packages, we learned that the growth over this period in the total number of recipients of Pell Grants and Supplemental Education Opportunity Grants (SEOGs) outpaced growth in college enrollment, which implies that even if the levels of these awards were not keeping up with tuition increases, they were probably offset to some degree by a rise in the number of students who obtained the awards (U.S. Bureau of the Census, 1997). In terms of composition of financial aid packages, a well-documented trend is a shift from grants to loans

¹Note that about one-third of four-year institutions were private in 1995, while only about 3 percent of two-year institutions were private.
Figure 3.4—Percentage Change in Real (1998 dollars) Tuition Costs (1985–1995) and Real Average Awards

(Cuccaro-Alamin and Choy, 1998; King, 1996). The College Board (1997) estimates that while loans accounted for just over 40 percent of all aid in academic year 1980–1981, loans now constitute nearly 60 percent of aid. Another trend is that aid from the student’s institution has been the fastest growing source of financial help since 1985 (Lee and Clerry, 1997).

COLLEGE PREMIUM

If the demand for education was stable, we would expect that enrollment would drop when college costs grew. In fact, over the last decade college enrollment rose as college costs grew. The growth in demand for higher education reflects the fact that the relative labor market return to attending college has risen dramatically over the last two decades (Gottschalk, 1997; Johnson, 1997; and Levy and Murnane, 1992). Estimates are that the college premium—defined as the percentage difference between the average real wage of a four-year college graduate and a high school graduate—grew by nearly two-thirds, rising from 40 percent in 1979 to 65 percent in 1995.
Attracting College-Bound Youth into the Military

(Mishel, Bernstein, and Schmitt, 1996). In part the rise in the college premium over the period results from a modest increase, 4.3 percent, in the average real wage of college graduates. But, in larger part, it results from the larger decrease, 11.8 percent, in the average real wage of high school graduates (Mishel, Bernstein, and Schmitt, 1996).

The fact that wages of college graduates have continued to rise at the same time that their numbers grew implies that the demand for education has outstripped supply (Gottschalk, 1997). Most explanations for the unprecedented surge in demand for educated workers have focused on the rise in demand for more-skilled relative to less-skilled labor. In addition to the increase in returns to education, the returns to another measure of skill—experience—has also grown. The consensus appears to be that demand for skilled workers reflects technical changes, such as widespread use of computer technology in many jobs, that have favored more-skilled workers relative to less-skilled workers (Johnson, 1997; Topel, 1997).

Evidence shows that in addition to those who earn a college degree, even those who do not complete a four-year college degree earn a return on their college education. Kane and Rouse (1995) estimate that, as of 1990, the college premium for those who graduated from high school between 1979 and 1983 was 21 percent for those who earned a two-year degree and 8 percent for those who obtained some college but did not earn a degree.3

The fact that even those who have some college get a return provides justification for the military's current practice of allowing recruits who have already obtained some college education to enter service at a higher pay grade. For example, the Army allows those with between 30 and 59 semester hours (between one and two years of college) to enter as an E-2. Those with 60 or more hours (more than

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2Gottschalk (1997) estimates the college premium to be 31 percent in 1979 and 53 percent in 1993, a 71 percent increase.

3For those who earn a bachelor's degree, Kane and Rouse estimate a college premium of 34 percent. This figure is not comparable to the four-year college premium discussed earlier in the text (65 percent in 1995). First, the Kane and Rouse figure is computed as of 1990. The earlier figure was for 1995. Second, the Kane and Rouse figure applies only to those who graduated from high school between 1979 and 1983. The earlier figure applies to all graduates.
two years) can enter as an E-3, and those with a B.A. degree can enter as an E-4 (see U.S. Army Recruiting Command, 1997).4,5

**DROPOUT RATES FROM POST-SECONDARY EDUCATIONAL INSTITUTIONS**

Although post-secondary education is an important source of competition for high quality recruits, it may at the same time be an important source of potential recruits. Many college attendees drop out of school and fail to complete their education. For example, of those freshman males who started in the 1989-1990 school year, 49.1 percent of those in a two-year program had neither attained a degree nor were still enrolled by 1994. For those in a four-year program, this figure was 30.9 percent (U.S. National Center for Education Statistics, 1996). Thus, roughly half of those in two-year programs and one-third of those in four-year programs drop out of school. Whether these dropouts constitute a new and important pool of college-educated recruits will depend on their characteristics. For example, if most are female or have low AFQT scores, then the pool may be a relatively unattractive source of new recruits. A future task of this project will be to describe the characteristics of college dropouts to ascertain their potential to enter military service.

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4 Note that if the military rather than the individual had paid for the education, the military may not have to pay higher wages, because the recruit had already received additional value for military service in the form of educational benefits.

5 An open question is what the college premium is in the military. This area requires further research.