INTRODUCTION

College Attendance and the Challenge to Recruiting

Recent difficulties by the services in meeting recruitment targets are in part a result of the business cycle. The civilian labor market experienced a long period of robust growth in the 1990s; the unemployment rate, which was 7.3 percent in January 1992, declined to 4.7 percent in January 1998 (Bureau of Labor Statistics, 1998). However, there is reasonable evidence to suggest that difficulties in meeting recruitment targets are not transitory and will not be mitigated by a contraction of the labor market. Rather, Asch et al. (1999) have suggested that these difficulties may stem in part from permanent changes within the civilian labor market that have made civilian opportunities more attractive to high-quality youth.

Specifically, the labor-market return to attending college has risen dramatically. The college premium—the percentage difference between the real wages of a four-year college graduate and a high school graduate—increased from 40 percent in 1979 to 65 percent in 1995 (Mishel et al., 1997, cited by Asch et al., 1999). Although the 4.3 percent increase in the real wage of the college graduate may account for some of this premium, most of it can be attributed to the 11.8 percent decrease in the average real wage of high school graduates.
Recruiting Youth in the College Market

(Asch et al., 1999). Thus, while attending college has an obvious benefit, not attending college also imposes a substantial cost. This expanding college premium appears to be driving the dramatic increases in postsecondary education enrollment rates since the 1980s. As growing numbers of high-quality youth pursue postsecondary education, it would seem that this important target group for military enlistments is contracting.

Two considerations that may affect postsecondary education decisions among high-quality youths are rising costs of college attendance faced by students and changes in the overall financial aid environment. Since the 1980s, the steady growth of postsecondary education enrollments has been accompanied by steep increases in student costs. According to the College Board (1998), between academic year (AY) 1987–1988 and AY 1997–1998, there was a 42 percent increase in tuition among four-year private schools and a 51 percent increase among four-year public schools in real terms.

The past decade has brought changes in the civilian financial aid environment as well. According to some observers, these changes seem to put civilian sources of financial aid into competition with military programs (United States Military Academy, 1997). It has also been noted that attractive aid options are available from other components of the military as well: The various National Guard programs and Selected Reserve programs offer lucrative education package to participants.

How we see this issue of competition depends on whether we look from the perspective of the high school student or from that of the veteran (or active-duty servicemember with education benefits). From the perspective of the high-quality high school youth, civilian and various military financial aid programs may seem to be competing opportunities. For example, the youth may consider taking out loans versus military service or weigh grant aid received versus benefits available through military service. Indeed, the youth may even trade off the costs and benefits of active duty against Selected Reserve participation. However, from the perspective of a veteran or enlistee with military benefits in hand, the programs no longer compete with each other. Rather, they interact. In this chapter, we are interested in both perspectives—competition and interaction.
To attract college-bound youth to enlist into an active component, the various services have offered numerous education programs, among them the Montgomery GI Bill (MGIB), various college funds (CF), tuition assistance (TA) programs, and loan repayment programs (LRP). To ensure that these programs have sufficient appeal to potential recruits, it is important to assess the degree to which benefits have kept up with rising costs of postsecondary education. Likewise, to situate the relevance of active-component benefits, it is also important to survey the civilian financial aid landscape as well as opportunities in other military components.

Objectives of This Chapter

This chapter seeks to address two research objectives that emerge from the concerns outlined above. First, it surveys the assistance programs available through the various components of the military and through federal financial aid programs. Part of the purpose of the survey is to identify, where possible, the interactions between and connections among the various military benefits and the prevailing civilian financial aid programs. This study focuses on programs designed for enlistees, paying particular attention to the MGIB and the CF. Second, the chapter examines the extent to which MGIB and CF dollar amounts have kept pace with expanding costs of postsecondary education attendance. In addition to achieving these objectives, we hope to provide a better sense of the complexity of comparing MGIB and CF benefits to other educational benefits and educational costs.

The chapter is organized as follows. The second section outlines the various educational benefit programs offered through enlistment in the active services as well as the Selected Reserve and the National Guard and summarizes the characteristics of current federal aid programs. It also briefly examines sources of variation in federal aid. The third section explores key trends in college costs faced by students since 1990, paying attention to variation across time, across states, and across types of institution. The fourth section draws several comparisons among the data, employing two methods to assess the purchasing power of both the MGIB and CF monies in relation to costs of attendance and to compare the purchasing power of these programs across time. Although these methods are similar, we use
them to ask different questions of our data. The fourth section also
draws several broad comparisons among the various financial aid
programs and shows that more-precise comparisons across pro-
grams are hampered by both the structure of the programs and the
available data about them. Finally, the fifth section concludes with a
discussion of concerns emerging from this study that require future
investigation. Because this chapter was researched and written dur-
during FY 1998, all programs are current as of FY 1998.

FINANCIAL AID PROGRAMS

Overview of Programs

Youth seeking to finance their postsecondary education usually have
a variety of options. The active-duty, Reserve, and Guard compo-
nents of the armed services offer numerous education benefits, and
the federal government supports several financial aid programs.
College-bound youth may also have access to state, institutional, and
foundation aid, depending upon the eligibility requirements of the
programs and the institutions they attend. Civilian aid programs,
several of which may be bundled into an aid package, offer benefit
levels that vary considerably from case to case. However, these civil-
ian programs by themselves are considerably smaller than most mili-
tary benefits.

Although military and civilian educational programs appear to offer
competitive opportunities from the perspective of a high-quality
youth considering enlistment or postsecondary education, from the
perspective of a student with military financial aid benefits, these
programs are not competing programs. Rather, there is significant
interaction among these aid sources because the benefits may be
bundled into a student's total financial aid package. It remains an
important empirical question as to how military educational benefits
affect the overall aid package: Do they displace grant aid that the
student would have received absent military service—or do they
displace loan aid? Additionally, it is important to understand that
participation in the military changes one's dependency status, which
in turn affects the determination of financial need and the allocation
of financial aid.
Opportunities for Full-Time Enlistees in the Army, Air Force, Navy, and Marines

To attract high-quality youth, the services have offered several education programs as enlistment incentives. Four main financial programs are available in most or all of the services: MGIB, CF, LRP and TA. Two of these programs, MGIB and CF, generally subsidize education upon completion of the service agreement, and all are subject to various qualifications. CF qualification requires enrollment in the MGIB because a component of CF benefits is derived from the MGIB program. TA may be used only while the individual is on active duty. LRP becomes available to an individual only upon enlisting and is subject to other qualifications as well. The option to use LRP precludes future use of MGIB and subsequently CF benefits.1

This section describes those programs that facilitate undergraduate study for individuals enlisting with full-time obligations. An inventory of educational opportunities with the armed services, which includes programs for officers, may be found in Thirtle (2001). For detailed information on data collection methods and sources, see Appendix D.

Montgomery GI Bill (Active Duty). The MGIB (Active Duty) is a program administered by the Veterans Administration (VA) that provides education funds for persons entering active duty in the Army, Air Force, Marine Corps, or Navy for the first time after June 30, 1985. To be eligible for the MGIB upon leaving service, servicemembers must receive an honorable discharge.2 Full-time National Guard duty performed after November 29, 1989, is also considered active duty.

1The Navy also introduced a program in FY 1998 called the Associate Degree Completion Program (ACDP). The program was subsequently changed in July 1999. Although this program is currently small, the Navy is considering plans to expand it. This report does not discuss this program. It should also be noted that the Navy has other educational programs that are non-monetary. These are described in Thirtle (2001). For example, ship-board members can obtain classroom instruction, and in some cases, computerized self-paced instruction. All courses are free of charge and fully accredited. Similar programs exist in the other services.

2According to the Federal Benefits for Veterans and Dependents (Department of Veterans Affairs, 1998), discharges that are designated “under honorable conditions” and “general” will not suffice to establish eligibility for MGIB. MGIB benefits may be used while on active duty but at a significant penalty. Maximum MGIB benefits may be obtained upon separating from service.
To qualify for maximum MGIB (Active Duty) benefits, participants must serve for three years. However, one may also qualify for maximum benefits by serving two years of continuous active duty initially, followed by four years of Selected Reserve service, commencing within one year of active duty release. Individuals who serve at least three years of continuous active duty will qualify for the maximum benefit even if they were initially obliged to serve less than three years (U.S. Department of Veterans Affairs, 1998).

To participate in the MGIB, servicemembers must agree to a $100 per month pay reduction for one year. This contribution to the MGIB program is not refundable even if the individual does not use the benefit. To qualify, the servicemember must either have a high school diploma or equivalency certificate or have completed 12 credit hours toward a college degree prior to the first period of active duty. Under most circumstances, these benefits are available for ten years from the last date of discharge or release from active duty. Under some extenuating circumstances, extensions are available.

According to *Federal Benefits for Veterans and Dependents* (U.S. Department of Veterans Affairs, 1998), the following education and training is available under the MGIB:

1. Courses at colleges and universities that lead to an AA, BA, or graduate degrees, and accredited independent study.
2. Courses that lead to a certificate or diploma from business, technical, or vocational schools.
3. Apprenticeship or on-the-job training programs for individuals who are not on active duty.
4. Under certain conditions, correspondence courses.
5. Flight training for veterans with a private pilot’s license who meet medical requirements for a commercial license throughout the duration of the training program.
6. Tutorial assistance benefits for veterans who are enrolled at least half time. Other training such as refresher and remedial courses may also be available.
7. Teacher certification programs that are state-approved.

Payment schedules for the MGIB for fiscal years (FYS) 1996–1998 are shown in Tables 3.1–3.3. Participants in the MGIB are also eligible for work-study programs offered through the VA.

Effective October 1, 1998, veterans enrolled in the active duty MGIB or reserve component began receiving a 20 percent increase in monthly benefits. This raises the maximum benefit to $19,008 (over 36 months) from the $15,834 award in FY 1997.3

The College Fund. The Army, Navy, and Marine Corps offer college fund programs as enlistment incentives to attract high-quality high school graduates into critical or hard-to-fill ratings or Military Occupation Specialties (MOS).4 Tables 3.1–3.3 describe these programs for FYS 1996, 1997, and 1998. All amounts are in nominal dollars. In terms of funding, these three programs are structured similarly. The college funds are composed of two parts: the MGIB contribution and a “kicker.” The kicker comprises the difference between the MGIB funds and the college fund amount guaranteed at the time of enlistment.

For a four-year obligation, the Army College Fund (ACF) is currently the most generous. For a four-year obligation, individuals may receive up to $40,000 for college studies.5 Before March 1997, the maximum was $30,000. The larger benefit is restricted to particular MOS outside the normal MOS chart. Because this maximum ACF is highly restricted, there are concurrent and less restrictive ACF programs for two-year, three-year, and four-year commitments with significantly lesser benefit levels (see Tables 3.1–3.3).

3Effective October 1, 1999, the maximum award was raised to $536 per month or $19,296 over four years.
4Depending on the service, different terminology is used to designate career fields or occupations: the Army uses the term MOS; the Navy uses the term “rating,” the Air Force uses the terms Air Force Specialty Code (AFSC) or simply “career field.” Throughout this report, we will use only MOS to suggest all terminology employed by the various services.
5In FY 1999 the maximum ACF was increased to $50,000. In this analysis, we use the FY 1998 maximums.
**Table 3.1**

**Benefits for Full-Time Enlistments, FY 1996**

<table>
<thead>
<tr>
<th>Service</th>
<th>Montgomery GI Bill</th>
<th>College Fund</th>
<th>Loan Repayment</th>
<th>Tuition Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>Amount: $14,998 maximum for obligation of three years or more $12,186 for obligation less than three years Lesser awards for part-time studies</td>
<td>Amount: $30,000 for four-year enlistment $26,000 for three-year enlistment $20,000 for two-year enlistment</td>
<td>Amount: $55,000 maximum</td>
<td>Amount: Lower level: up to 7% of tuition; not to exceed (NTE) $60 per semester hour (SH) Upper level: up to 75% of tuition; NTE $85 per SH Voc-Tech: up to 75% of tuition; NTE $1300/FY Limited to 15 SHs/FY</td>
</tr>
</tbody>
</table>

Duration: Up to ten years upon leaving service Duration: Up to ten years upon leaving service Duration: 33 1/3 percent paid each year of active duty for three years Duration: While on active duty
<table>
<thead>
<tr>
<th>Service</th>
<th>Montgomery GI Bill</th>
<th>College Fund</th>
<th>Loan Repayment</th>
<th>Tuition Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Force</td>
<td>Amount: $14,998 maximum for obligation of three years or more $12,186 for obligation less than three years Lesser awards for part-time studies</td>
<td>Amount: Air Force has no college fund</td>
<td>Amount: No loan repayment program</td>
<td>Amount: 75% of tuition or $250 per SH Voc-Tech: up to 75% of tuition; NTE, $187.50 per SH Limited to 15 SHs/FY</td>
</tr>
<tr>
<td>Navy</td>
<td>Amount: $14,998 maximum for obligation of three years or more $12,186 for obligation less than three years Lesser awards for part-time studies</td>
<td>Amount: $30,000 maximum for four-year enlistment $25,000 maximum for three-year enlistment</td>
<td>Amount: No loan repayment program</td>
<td>Amount: Undergrad: 75% of tuition; NTE $2,500/FY No limit</td>
</tr>
</tbody>
</table>
Table 3.1 (continued)

<table>
<thead>
<tr>
<th>Service</th>
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<th>College Fund</th>
<th>Loan Repayment</th>
<th>Tuition Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navy</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: NA</td>
<td>Duration: While on active duty</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>Amount: $14,998 maximum for obligation of three years or more $12,186 for obligation less than three years Lesser awards for part-time studies Duration: Up to ten years upon leaving service</td>
<td>Amount: $30,000 for three- or four-year enlistment</td>
<td>Amount: No loan repayment program</td>
<td>Amount: Undergrad: Voc-Tech: 75% of tuition; NTE $2,500/FY. No limit</td>
</tr>
</tbody>
</table>

SOURCE: Tuition assistance data for all services provided by Otto Thomas, Chief, DoD Continuing Education. Naval College Fund and MGIB information provided by Linda Thomas, MGIB Program Manager, and Carol Slone, Navy College Fund Coordinator, at the Bureau of Naval Personnel. Information on Army programs provided by Sara Rowley, Rubin Grega, and Martha Mraz, Education Incentive Branch, Army Continuing Education Services. Information on Marine Corps programs provided by Captain McClelland, HQMC, Division of Public Affairs, Media Officer. MGIB information provided by Giles Larrabee, Department of Veterans Affairs. Air Force information provided by Al Arrighi, Air Force Education and Training Division, Directorate of Personnel. NOTE: All amounts given in nominal dollars.
Table 3.2
Benefits for Full-Time Enlistments, FY 1997

<table>
<thead>
<tr>
<th>Service</th>
<th>Montgomery GI Bill</th>
<th>College Fund</th>
<th>Loan Repayment</th>
<th>Tuition Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>Amount: $15,403 maximum for obligation of three years or more $12,515 for obligation less than three years Lesser awards for part-time studies</td>
<td>Amount: Effective March 1997: For restricted MOS selected by DA outside normal MOS chart, these amounts are offered concurrently with those of FY95: $40,000 for four-year enlistment $33,000 for three-year enlistment $26,500 for two-year enlistment</td>
<td>Amount: Prior to 3 February, $55,000 maximum; after 3 February, $65,000 maximum</td>
<td>Amount: Lower level: $60 per SH or 75% of tuition, whichever is less Upper level: $85/SH or 75% of tuition, whichever is less 15 SH/FY per soldier</td>
</tr>
<tr>
<td></td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: 33 1/3 percent paid each year of active duty for three years</td>
<td>Duration: While on active duty</td>
</tr>
<tr>
<td>Service</td>
<td>Montgomery GI Bill</td>
<td>College Fund</td>
<td>Loan Repayment</td>
<td>Tuition Assistance</td>
</tr>
<tr>
<td>---------</td>
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<td>-------------------</td>
</tr>
<tr>
<td>Air Force</td>
<td>Amount: $15,403 maximum for obligation of three years or more $12,515 for obligation less than three years Lesser awards for part-time studies</td>
<td>Amount: Air Force has no college fund</td>
<td>Amount: No loan repayment program</td>
<td>Amount: 75% of $250 per credit hour (CH) or 75% of tuition, whichever is less No CH limit</td>
</tr>
<tr>
<td>Navy</td>
<td>Amount: $15,403 maximum for obligation of three years or more $12,515 for obligation less than three years Lesser awards for part-time studies</td>
<td>Amount: $30,000 maximum for four-year enlistment $25,000 maximum for three-year enlistment</td>
<td>Amount: No loan repayment program</td>
<td>Amount: Undergrad: 75%; NTE $2,500</td>
</tr>
</tbody>
</table>
Table 3.2 (continued)

<table>
<thead>
<tr>
<th>Service</th>
<th>Montgomery GI Bill</th>
<th>College Fund</th>
<th>Loan Repayment</th>
<th>Tuition Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navy</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: NA</td>
<td>Duration: While on active duty</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>Amount: $15,403 maximum for obligation of three years or more; $12,515 for obligation less than three years; Lesser awards for part-time studies</td>
<td>Amount: $30,000 for three- or four-year enlistment</td>
<td>Amount: No loan repayment program</td>
<td>Amount: Undergrad: 75%; NTE $2,500/FY</td>
</tr>
<tr>
<td></td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: NA</td>
<td>Duration: While on active duty</td>
</tr>
</tbody>
</table>

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NOTE: All amounts given in nominal dollars.
### Table 3.3

Benefits for Full-Time Enlistments, FY 1998

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<tr>
<th>Service</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>Amount: $15,835 maximum for obligation of three years or more $12,866 for obligation less than three years Lesser awards for part-time studies</td>
<td>Amount: Effective March 1997: For restricted MOS selected by the Department of the Army outside normal MOS chart, these amounts are offered concurrently with those of FY95: $40,000 for four-year enlistment $33,000 for three-year enlistment $26,500 for two-year enlistment</td>
<td>Amount: $65,000 maximum</td>
<td>Amount: Lower level: $60/SH or 75% tuition, whichever is less Upper level: $85/SH or 75% of tuition, whichever is less Voc-Tech: up to 75% ; NTE $1300/FY Limit 15 SH/FY per soldier</td>
</tr>
</tbody>
</table>
Table 3.3 (continued)

<table>
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<tr>
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<th>Loan Repayment</th>
<th>Tuition Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: 33 1/3 percent paid each year of active duty for three years</td>
<td>Duration: While on active duty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Force</td>
<td>Amount: $15,835 maximum for obligation of three years or more $12,866 for obligation less than three years Lesser awards for part-time studies</td>
<td>Amount: Air Force has no college fund</td>
<td>Amount: No loan repayment program</td>
<td>Amount: 75% of $250/S.H Voc-Tech: up to 75%, $187.50/S.H Maximum 15 contact hours per week</td>
</tr>
<tr>
<td></td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: NA</td>
<td>Duration: NA</td>
<td>Duration: While on active duty</td>
</tr>
</tbody>
</table>
### Table 3.3 (continued)

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Navy</td>
<td>Amount: $15,835 maximum for obligation of three years or more $12,866 for obligation less than three years Lesser awards for part-time studies</td>
<td>Amount: $40,000 for nuclear field recruits (six-year obligation) $30,000 maximum for four-year enlistment $25,000 maximum for three-year enlistment</td>
<td>Amount: In FY98, a $10,000 repayment program was introduced</td>
<td>Amount: Undergrad: 75%; NTE $2,500/FY Voc-Tech: up to 75%; NTE $1,300/FY No limit</td>
</tr>
<tr>
<td></td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: After first year, 33 1/3% or $1,500, whichever is greater, for three years</td>
<td>Duration: While on active duty</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>Amount: $15,835 maximum for obligation of three years or more</td>
<td>Amount: $30,000 for three- or four-year enlistment</td>
<td>Amount: No loan repayment program</td>
<td>Amount: Undergrad and Voc-Tech: 75%; NTE $2,500/FY No limit</td>
</tr>
</tbody>
</table>
Table 3.3 (continued)

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<th>Tuition Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Corps</td>
<td>Amount: $12,866 for obligation less than three years</td>
<td>Duration: Up to ten years upon leaving service</td>
<td>Duration: NA</td>
<td>Duration: While on active duty</td>
</tr>
<tr>
<td></td>
<td>Lesser awards for part-time studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duration: Up to ten years upon leaving service</td>
<td></td>
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</tbody>
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NOTE: All amounts given in nominal dollars.
To qualify for the ACF, individuals must meet the following criteria:

1. Have no prior service.
2. Enlist in the active-duty Army between July 1, 1985 and the present.
3. Have a high school diploma.
4. Score a 50 or higher on the Armed Forces Qualification Test (AFQT).
5. Enlist in a qualifying MOS.
6. Enroll and participate in the MGIB.
7. Enlist with the ACF as a part of the enlistment agreement (http://www-perscom.army.mil/tagd/aces/acf.htm).

In FY 1998, the Navy also introduced a $40,000 maximum college benefit for nuclear field recruits agreeing to six-year obligations. In FY 1998, the Navy continues to offer $30,000 college fund benefits for four-year obligations and lesser awards for three-year enlistments. The college fund for the Marines offers $30,000 for three- or four-year obligations. At present, the Air Force does not offer a college fund enlistment incentive. As with the MGIB, college fund benefits may be used up to ten years after release from duty.

**Loan Repayment.** Before FY 1998, the Army was the only service to offer a loan repayment program (LRP). This program, available to enlisted personnel only, was intended as an incentive to attract Army enlistees with at least some college education (United States Army Regulation EC 621-1, cited by Thirtle, 2001). Before February 3, 1997, the maximum loan repayment amount was $55,000. After February 3, 1997, the Army repays one-third or $1,500 of an outstanding eligible loan, whichever is greater for each year of service up to $65,000. No interest or other charges accrued due to default will be paid (Thirtle, 2001). Furthermore, the Army will not repay loans that are in default. (See http://www-perscom.army.mil/tagd/aces/lrpfaq.htm.)

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*In FY 1999, the Navy College Fund was increased to $50,000 for nuclear field recruits and to $40,000 for non–nuclear field recruits.*
To qualify for the program, an applicant must meet the following criteria:

1. Enter active duty between December 1, 1980 and September 30, 1980 or after 30 September 1982.
2. Be a non–prior service recruit.
3. Have a high school diploma.
4. Score 50 or higher on the AFQT.
5. Enlist in a specific critical MOS.
6. Disenroll from the MGIB.

The following loans are eligible for LRP if they were acquired after October 1975 (See Thirtle, 2001, and http://www-perscom.army.mil/tagd/aces/lrp.htm):

- Stafford Loans
- Perkins Loans
- Federally Insured Student Loans
- Auxiliary Loans to Assist Students (ALAS)
- Parents’ Loans for Undergraduate Students (PLUS)
- Supplemental Loans for Students
- Consolidated Loan programs.

In FY 1998, the Navy also introduced an LRP for enlisted personnel. This program was likewise intended to be an enlistment incentive to attract high-quality candidates into critical ratings, or occupations. The maximum amount to be repaid under this program is $10,000, and it requires a four-year enlistment. Like the Army’s LRP, the Navy’s will repay one-third or $1,500 of the outstanding principal at the time of enlistment, whichever is higher. Benefits will be paid only after the end of the first year of service.
According to “Enlisted Policy-Gram #21-98,” provided by Department of the Navy, Navy Recruiting Command, the basic eligibility criteria for the Navy LRP are the following. The member must:

1. Be non-prior service.
2. Enlist or contract under a delayed enlistment agreement.
3. Enter on active duty after 1 July 1997.
4. Have a high school diploma.
5. Score 50 or above on the AFQT.
6. Enlist and remain in a critical LRP rating, subject to change of recruiting environment.

Loans that are eligible for the Navy LRP must have been incurred after October 1, 1975 and prior to enlistment. Eligible loans include loans from the following programs (Enlisted Policy-Gram #21-98, provided by Department of the Navy, Navy Recruiting Command):

- Guaranteed Student Loans/ Stafford Loans
- Federal Stafford/Ford Loans
- Federal Direct Loans, National Direct Student Loans for Students
- Federally Insured Student Loans
- PLUS
- ALAS.

**Tuition Assistance.** Prior to the Uniform Tuition Assistance program, effective October 1, 1998, there was tremendous variation in TA programs across the Department of Defense. Nevertheless, some general comments may be made about all of these TA programs and their coverage rates. For individuals who have not completed their high school diploma or high school equivalency diploma (GED), TA covers 100 percent of the costs for approved high school completion programs. For courses toward the completion of an undergraduate or graduate degree, TA covers no more than 75 percent of tuition and fees. Tuition assistance is available only for courses that are part of a program of study leading up to a post-secondary certificate or degree and is provided only for courses offered by accredited postsecondary
institutions. Personnel are eligible for TA as long as they are on active duty.

The above description, while general, belies the diversity that has typified TA programs across the services and across time. Tables 3.1–3.3 outline the variation in programs across the services and within the various services between FY 1996 and FY 1998. Two main areas of divergence are fiscal year course caps and dollar amount caps. For example, in FY 1998, both the Army and Air Force imposed credit hour caps whereas the Navy and Marine Corps did not. Although all programs adhered to the 75 percent ceiling, the services could impose additional monetary caps on their program. For instance, in FY 1998, for lower division courses, the Army paid $60 per semester hour or 75 percent of the tuition costs—whichever was less. The Air Force paid up to $187.50 per semester hour. Thus, under these varying programs, it was theoretically possible that students from differing services could sit in the same classroom and incur very different personal costs. Effective FY 1999, the DoD adopted a uniform TA policy by which all services pay 75 percent of tuition costs up to a maximum of $187.50 per credit hour. Although there are no limits imposed on the number of credit hours, this new uniform policy imposes a $3,500 annual monetary cap.

Opportunities in the Selected Reserves and National Guard

A West Point Study (United States Military Academy, 1997) argued that the Selected Reserve and National Guard offer packages that may be competitive when compared with programs offered by the active services. These programs might be attractive to potential recruits because they may simultaneously serve part-time and pursue their degrees. Not only do these programs provide funding for education, they also provide participants with a salary—perhaps making them seem like a “part-time job” for students.

Generally speaking, there are two federal sources of funding available to members of the Selected Reserve (of which the Army and Air National Guard are two components): MGIB Selected Reserve and Loan Repayment. There is also limited TA for the Army Reserve, which provides support for distance learning programs. Even though a federal TA program has not been funded for Selected Reserve members’ traditional learning, nearly every state offers some sort of resi-
dent tuition assistance that guardspersons may use. Sometimes such programs exist for members of the Reserve as well. For instance, Louisiana offers 100 percent tuition for reservists (Conversation with the Human Resources Branch at Office of Chief, Army Reserve, June 1998). (See Appendix D for details about data collection methods and sources.)

**Montgomery GI Bill Selected Reserve (MGIB-SR).** To be eligible for the MGIB-SR, reservists (including National Guardspersons) must have begun a six-year obligation to serve in the Selected Reserve after June 30, 1985. Reservists must also complete the Initial Active Duty for Training (IADT). To be eligible for the MGIB-SR, reservists must have completed their high school diploma or equivalency prior to completing IADT and remain in good standing within a Selected Reserve unit. Unlike the benefits of the MGIB for active duty, these benefits may not be used upon departing from service. Reservists must use their MGIB benefits while serving in the Selected Reserve because benefits end ten years from the date the reservist qualified for the program or on the day the reservist leaves the Selected Reserves, whichever comes first. As with the active-duty MGIB, participants are eligible for work-study programs offered through the VA (U.S. Department of Veterans Affairs, 1998). Unlike the active duty MGIB, the program is offered at no cost to the participant.

In FY 1998, reservists in the Selected Reserve could receive up to $7,521 over 36 months. As with active-duty MGIB, benefits are paid monthly during those periods the participant is enrolled in an eligible course of study. Table 3.4 indicates the maximum MGIB-SR benefits for FYs 1996–1998. However, effective June 1998, the Army Reserve instituted a new program, the MGIB kicker. This program provides an additional $350 per month, bringing the monthly benefit to slightly under $560 per month. Note that this program offers funding far in excess of the MGIB (Active Duty). The program provides funding in excess of $20,000 over 36 months, compared with $15,835 over 36 months offered through the MGIB (Active Duty). This program is not generally available—one must be in a priority unit and in a priority MOS. As of this writing, the Army Reserve had

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As of FY 2000, the MGIB-SR pays up to $9,180 over 36 months.
### Table 3.4

**Selected Reserve Benefits**

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MGIB</td>
<td>All Select Reserve Components</td>
<td>$7,124 maximum, over 36 months for full-time studies</td>
<td>Lesser awards for part-time studies</td>
<td>Full- and three-quarter-time enrollees eligible for work-study program</td>
</tr>
<tr>
<td></td>
<td>Army</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Navy</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Air Force</td>
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<tr>
<td></td>
<td>Marine Corps</td>
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<tr>
<td></td>
<td>Coast Guard</td>
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<tr>
<td></td>
<td>Army National Guard</td>
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<tr>
<td></td>
<td>Air National Guard</td>
<td></td>
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</table>

See text for details on MGIB Kicker effective June 1998
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Repayment</td>
<td>Army Reserve, Army National Guard, Air National Guard</td>
<td>Duration: Benefit ends either on the day of separation or ten years after participant qualifies, whichever comes first</td>
<td>Duration: Benefit ends either on the day of separation or ten years after participant qualifies, whichever comes first</td>
<td>Duration: Benefit ends either on the day of separation or 10 years after participant qualifies, whichever comes first</td>
</tr>
<tr>
<td></td>
<td>Amount: $10,000–20,000, depending on MOS and determination of needed skills Guards pay up to $10,000</td>
<td>Amount: $10,000–20,000, depending on MOS and determination of needed skills</td>
<td>Amount: $10,000–20,000, depending on MOS and determination of needed skills</td>
<td></td>
</tr>
</tbody>
</table>
### Program Applicable Services FY 1996 FY 1997 FY 1998

**Loan Repayment**
- Army Reserve
- Army National Guard
- Air National Guard

**Duration:** For each year of satisfactory service, 15% of the original balance plus interest unpaid by the Department of Education or $500 plus interest, whichever is greater

**SOURCE:** MGIB data obtained from the Department of Veterans Affairs, Education Service. Information on the Army Reserve Loan repayment taken from the *Reserve Forces Almanac*, 1996, 1997, and 1998. This information was confirmed by the Human Resources Branch at Headquarters Office of Chief Army Reserve (OCAR).
the only program that offered this level of incentive for Selected Reserve participation. The remaining services utilized the basic MGIB-SR benefit (Conversation with Incentives Office, Office of the Chief, Army Reserve, June of 1998).\(^8\)

As with the MGIB (Active Duty), effective October 1, 1998, members of the Selected Reserves received a 20 percent increase in monthly MGIB-SR benefits.\(^9\)

**Loan Repayment.** We tried to verify the existence of loan repayment programs in the various reserve components described in the *Reserve Forces Almanac*. We were able to confirm only that the Army Reserve, Army National Guard, and Air National Guard use this program.

Depending upon the MOS contracted, the Army Reserve program repays up to a maximum of $10,000 to $20,000. Table 3.4 summarizes loan repayment levels for FYs 1996–1998. (The maximums are not regulated, but once an LRP amount of $10,000 dollars is established for a soldier, it cannot be increased to $20,000 during the soldier’s career.) For each year of satisfactory service, 15 percent of the original balance plus interest unpaid by the Department of Education or $500 plus interest not paid by the Department of Education will be paid, whichever is greater (United States Army Regulation 135-7, 1994).

This incentive provides for the repayment of loans secured after October 1, 1975 from the following programs:

- Stafford Loans (formerly Guaranteed Student Loans)
- Federally Insured Student Loans
- Perkins Loans (formerly National Defense Student Loans and National Direct Student Loans)
- Auxiliary Loans to Assist Students
- PLUS (provided the soldier is the student using the loan)
- Supplemental Loans for Students

\(^8\)Subsequently, the other Reserve Components have begun utilizing this kicker to varying degrees.

• Consolidated Loan Program.

According to United States Army Regulation 135-7, a reservist becomes eligible for the LRP upon meeting the following criteria:

1. Has completed IADT.
2. Is MOS-qualified or has received sufficient training to be deployed.
3. Has a high school diploma or equivalent.
4. Has served one year in the Selected Reserve upon securing the loans in question.
5. Has reached the anniversary date of the Selected Reserve contract for LRP participation.

To participate in the LRP, reservists contractually agree to serve satisfactorily for the full term of the obligation. They further obligate themselves to continue to serve in the same MOS unless excused for the government’s convenience (United States Army Regulation 135-7, 1994).

Entitlement to the program ends if the reservist completes the contracted term of service, is reclassified into a skill ineligible for the program, does not satisfactorily perform for the full term of his or her enlistment, or accepts a civilian job where membership in the Selected Reserves is a condition of employment (United States Army Regulation 135-7, 1994).

Both the Air National Guard and Army National Guard offer LRP programs that will repay up to $10,000 in student loans for enlisted personnel. The details of the National Guard LRP programs have varied considerably over the past several years.

Special Programs for the National Guard. Apart from programs available to all or several components in the Selected Reserve, there are specific programs available to members of the Air or Army National Guard. Educational assistance for the National Guard may come from both state-funded and federally funded programs. With respect to state-funded programs, TA for the National Guard varies extensively across the states and territories. Table 3.5 presents a
breakdown of states and territories offering tuition assistance to members of the Army and Air National Guard. It demonstrates that the vast majority of states offer some type of tuition assistance to members of the National Guard.

Federal educational benefits for the Army National Guard include tuition assistance (Conversation with Education Service Officer, National Guard Bureau in July, 1998). According to the Education Officer at the National Guard Bureau, there are two tuition assistance policies. One policy provides for traditional, classroom-based courses. It will cover 75 percent of tuition or up to $100 per credit hour, whichever is less, for undergraduate courses. An individual may take up to 15 credit hours per fiscal year. Another policy provides for distance learning programs. It pays for 75 percent of tuition up to $2,000 per fiscal year and up to 15 credit hours per fiscal year. As of FY 1998, the Air National Guard did not fund these federal TA programs.

**Federal Financial Aid Programs**

In this subsection, we focus on federal student financial aid programs, which include Pell Grants, Supplemental Educational Opportunity Grants (SEOG), subsidized and unsubsidized Stafford Loan programs, PLUS, Perkins Loans, and State Student Incentive Grants. We also look at educational opportunities provided by the Taxpayer Relief Act of 1997. (See Appendix D for detailed information about data collection methods.)

Our conversations with policymakers and members of the defense community suggest that there is considerable misunderstanding about federal financial programs, particularly the Pell Grant. (For ex-

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10 Some states offer multiple programs simultaneously. Program details vary. Some programs are for in-state schools only. Some are restricted to undergraduate studies. Others fund associate degrees at different rates than baccalaureates. Some have merit-based or need-based criteria. As noted, some programs offer loan forgiveness in lieu of tuition assistance.

11 Eligibility for these programs is unclear. While the regulations state that active duty Guardsmen are eligible, the Education Officer at the National Guard Bureau maintained that the “weekend Guardsperson” is also eligible (Conversation with Education Officer, National Guard Bureau, July 1998).
Table 3.5

Summary of State-Based Maximum Tuition Assistance Available for Members of the National Guard, FY 1998

<table>
<thead>
<tr>
<th>States Providing No TA</th>
<th>States Providing Partial TA or “Full TA” Subject to Caps</th>
<th>States Providing Full TA or Tuition Waivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas(^a)</td>
<td>Alabama</td>
<td>Connecticut</td>
</tr>
<tr>
<td>California</td>
<td>Alaska</td>
<td>Delaware</td>
</tr>
<tr>
<td>Georgia(^b)</td>
<td>Arizona</td>
<td>Illinois</td>
</tr>
<tr>
<td>Guam</td>
<td>Colorado</td>
<td>Kansas</td>
</tr>
<tr>
<td>Idaho</td>
<td>D.C.</td>
<td>Kentucky</td>
</tr>
<tr>
<td>Indiana</td>
<td>Florida</td>
<td>Louisiana</td>
</tr>
<tr>
<td>Maine</td>
<td>Hawaii</td>
<td>Massachusetts</td>
</tr>
<tr>
<td>Michigan</td>
<td>Iowa</td>
<td>New Hampshire</td>
</tr>
<tr>
<td>Montana(^a)</td>
<td>Maryland</td>
<td>New Jersey</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Minnesota</td>
<td>New York</td>
</tr>
<tr>
<td>Oregon</td>
<td>Mississippi</td>
<td>North Dakota</td>
</tr>
<tr>
<td>Tennessee</td>
<td>Missouri</td>
<td>Oklahoma</td>
</tr>
<tr>
<td>Texas</td>
<td>Nebraska</td>
<td>Washington</td>
</tr>
<tr>
<td>Vermont</td>
<td>Nevada</td>
<td>West Virginia</td>
</tr>
<tr>
<td>Wyoming</td>
<td>North Carolina</td>
<td>Wisconsin</td>
</tr>
<tr>
<td></td>
<td>Ohio</td>
<td></td>
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<td></td>
<td>Pennsylvania</td>
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<td></td>
<td>Puerto Rico</td>
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<td></td>
<td>Rhode Island</td>
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<td></td>
<td>South Carolina</td>
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<tr>
<td></td>
<td>South Dakota</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Utah</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Virgin Islands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Virginia</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Program is currently not funded.
\(^b\)Program available is a loan-forgiveness program.

ample, several individuals have asserted that MGIB benefits preclude one from obtaining a Pell Grant.) To address these concerns, we next undertake a comprehensive discussion of financial aid eligibility.

Over the past decade, appropriations for the federal grant programs—Pell and Supplemental Educational Opportunity Grants—have grown only slightly in constant dollars. More generally, a survey of the landscape of civilian financial aid programs reveals an important trend: Financial aid programs are shifting away from grants toward loans. This shift could have important implications for military
Students may weigh the prospect of heavy loan debt against the opportunities available in the armed services. Perhaps military loan forgiveness programs may be made more attractive to debt-laden graduates or dropouts seeking loan-repayment and career opportunities. However, such optimistic speculation about this shift in aid and the impact on recruitment is dampened by the findings in Chapter Two: Despite the shift in financial aid from grants to loans, youth intention to enlist has dramatically diminished while their intention to pursue postsecondary education has increased.

Overview of the Financial Aid Landscape. The federal government is the most significant source of financial aid. Yet appropriations for the Pell and SEOG grant programs have grown little over the past decade, while eligibility has been expanded. Although this has resulted in more awards, the average award has actually declined (The College Board, 1997, Lee and Clery, 1997). Table 3.6 presents data on the program maximums and average awards for AY 1995–1996 and AY 1997–1998. It is important to keep in mind that there are numerous other sources of funding in addition to federal programs—state aid, foundation aid, various merit-based programs, and institutional aid, among others.

State programs are much smaller sources of funding, providing only 6 percent of total student aid. Yet, after adjusting for inflation, state aid has grown by 50 percent over the past ten years. However, Congress reduced federal matching of state need-based grants through the State Student Incentives Grants (SSIG) program by 50 percent in 1996–1997. Although the program was restored in 1997–1998, the appropriations were again halved in FY 1998 (i.e., AY 1998–1999) (The College Board, 1997, 1998, and Lee and Clery, 1997).

The fastest-growing source of aid has been institutional aid, which has doubled since AY 1987 (The College Board, 1997 and Lee and Clery, 1997). Lee and Clery (1997) posit that educational institutions are funneling discretionary income generated by tuition increases into financial aid packages. Thus, institutional aid may be a mechanism of cross subsidization of students who have lesser financial ability to pay by students who can afford the stated costs of attendance. Rose and Sorensen investigated the claim that institutions
Table 3.6
Federal Student Aid Levels
(Maximum and Average Awards per Funded Student)

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pell Grant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>$2,340</td>
<td>$2,700</td>
</tr>
<tr>
<td>Average</td>
<td>$1,501</td>
<td>$1,698</td>
</tr>
<tr>
<td>SEOG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>$4,000</td>
<td>$4,000</td>
</tr>
<tr>
<td>Average</td>
<td>$697</td>
<td>$727</td>
</tr>
<tr>
<td>Federal Work Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>Not specified</td>
<td>Not specified</td>
</tr>
<tr>
<td>Average</td>
<td>$1,307</td>
<td>$1,215</td>
</tr>
<tr>
<td>Total Stafford Loans for undergraduates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>$10,500 (up to $5,500 may be subsidized)</td>
<td>$10,500 (up to $5,500 may be subsidized)</td>
</tr>
<tr>
<td>Average</td>
<td>$3,889</td>
<td>NA</td>
</tr>
<tr>
<td>Subsidized Stafford Loans for undergraduates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>$5,500</td>
<td>$5,500</td>
</tr>
<tr>
<td>Average</td>
<td>$3,062</td>
<td>$3,493</td>
</tr>
<tr>
<td>Unsubsidized Stafford Loans for undergraduates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>$10,500</td>
<td>$10,500</td>
</tr>
<tr>
<td>Average</td>
<td>$2,908</td>
<td>$3,791</td>
</tr>
<tr>
<td>PLUS Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>COA minus other financial aid amounts</td>
<td>COA minus other financial aid amounts</td>
</tr>
<tr>
<td>Average</td>
<td>$5,817</td>
<td>$6,285</td>
</tr>
<tr>
<td>Perkins Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>$3,000 ($15,000 cap in undergraduate career)</td>
<td>$3,000 ($15,000 cap in undergraduate career)</td>
</tr>
<tr>
<td>Average</td>
<td>$1,386</td>
<td>$1,564</td>
</tr>
<tr>
<td>SSIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>(varies by state)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>


NOTE: All amounts in nominal dollars. COA = cost of attendance.
charge high tuition to subsidize needy students, a practice that is "observationally equivalent to ordinary price discrimination" (Rose and Sorensen, 1992, p. 66). Their findings suggest that whatever cross-subsidization occurs is likely to occur in a highly targeted way that does not benefit all needy students equally. As discussed next, institutional aid is highly dependent on the type of school and type of institutional control, with institutional aid awards increasing along with the size of the institution’s endowment (U.S. Department of Education, 1997d).

Financial aid has a broad base of recipients. During AY 1995–1996, nearly 50 percent of all undergraduates received some type of financial aid, averaging $4,926 (U.S. Department of Education, 1997d). The percentages of students receiving federal aid varied with the family income, type of institution, and whether the student was dependent or independent. Among dependent undergraduate students, 63 percent of students from families with incomes of less than $20,000 received federal aid and 13 percent of students from families with income of $100,000 or more received aid. Among independent undergraduates with incomes of $10,000 or less, 58 percent received some type of federal aid. Among students attending less than two-year public institutions, 16 percent received federal aid compared with 71 percent of undergraduates at private, for-profit, two-year or higher institutions. Forty-five percent of the students attending four-year public schools received federal aid and 52 percent of the students at four-year private schools received such aid (U.S. Department of Education, 1997d).

There has been an important philosophical shift in financial aid: Over the past decade, financial aid has tended to move from grants to loans (Grubb and Tuma, 1991, The College Board, 1997, King, 1996). Since 1992–1993, student debt has increased by more than 50 percent, as a result of changes in the 1992 reauthorization of the Higher Education Act (King, 1996). Specifically, King (1996) posited the following causes for the observed growth in student debt:

- Increased borrowing limits.

---

12 Cost of attendance varies with the type of institution attended. Therefore the determination of unmet need will also vary with the type of school attended.
• New method of calculating the Expected Family Contribution, which resulted in more middle-income families becoming eligible for federal need-based programs, including Federal Stafford Loans.

• The establishment of a new, unsubsidized loan program available to all students regardless of financial need. These loans now comprise one-third of federal loan volume. The rapid growth of this program accounts for nearly 50 percent of the increase observed in student loan volume.

Oddly, as King notes, the increase in loan volume far exceeds actual increases observed in cost of attending either private or public schools. Thus, King argues, this increase in loan volume must be attributable to other factors. King puts forth the possibility of intergenerational transfer of fiduciary responsibility for financing postsecondary education. She suggests that students are taking out unsubsidized loans at least in part because of parents’ unwillingness to plan ahead for college. She cites as evidence the decreasing numbers of PLUS Loans. King notes that this correlation is obviously obfuscated by private informal arrangements whereby parents assist their children. She also raises the possibility that middle-income undergraduates are taking out loans irresponsibly.

One response to King’s conclusions is that she does not comment upon the growth of the average loan package, the fraction of loans in the total student aid package, or the numbers of students taking on debt. It may be that more students are willing to take out loans, thus contributing to expanding loan volume. Increased willingness to borrow may be explained by the literature examining the demand for higher education and returns to human capital investment in the labor market (Becker, 1997). Growth in demand for higher education, despite soaring costs, principally reflects the increasing returns to education realized in the labor market. For instance, the college premium (the percentage difference in average real wages between a four-year college graduate and a high school graduate) increased from 40 percent in 1979 to 65 percent in 1995 (Mishel, Bernstein, and Schmitt, 1997). This increase in the college premium is mostly attributed to the precipitous drop in wages among those without college degrees. Thus, as the return to educational investments grows (and the penalties for not making educational investments grow), so
may the willingness to pay for educational investments. More people may be willing to take on loans to finance this investment.

For King, this shift from grants to loans is significant because of the impact these funding policies have on low-income students: As the purchasing power of grants declines, low-income students have a diminished option set. For this study, we speculate that as financial aid continues to shift from grants to loans, programs such as military education incentives become even more important in the landscape of financial aid options. For instance, a young person may weigh the disadvantages of taking on a significant loan burden against enlisting in the military. Alternatively, graduates or college dropouts with significant debt may consider the military loan forgiveness programs.

**Federal Programs of Interest.** Having discussed briefly some of the significant trends and changes in the financial aid landscape, we now focus on federal financial aid programs, which are the largest sources of aid. Although we recognize the importance of other programs, a systematic evaluation of various state aid programs, foundation initiatives, and institutional aid policies is not a tractable task within the scope of this study.

We detail the application procedures and the qualification criteria for the following federal financial aid programs: Pell Grants, SEOG, subsidized and unsubsidized Stafford Loan programs, PLUS, Perkins Loans, and State Student Incentive Grants. We also discuss the Hope Scholarship and the Lifetime Learning Tax credit, part of the Taxpayer Relief Act of 1997, even though they are not considered federal financial aid programs. Rather, as their names suggest, they are tax credits and have no formal application procedure.

**Qualifying for Federal Financial Aid Programs: The Free Application for Federal Student Aid.** All federal financial aid programs except unsubsidized loans under certain programs require students to demonstrate financial need. For federal financial aid programs, financial need is determined by the following formula:

\[
\text{Financial Need} = (\text{Cost of Attendance}) - (\text{Expected Family Contribution})
\]
Each of these components will be addressed below. To determine eligibility, students must apply for federal financial aid programs by completing the Free Application for Federal Student Aid (FAFSA). The information obtained from the FAFSA includes data on the student’s dependency and/or marital status, household income and assets, availability of veterans’ benefits, and the number of children attending college. Scholarships obtained from other sources are not reported on the FAFSA. These data are used in formulae established by the U.S. Congress to determine the expected family contribution (EFC) and the annual cost of attendance (COA). The formula to determine EFC varies with the student’s dependency status (1997–1998 Student Guide, U.S. Department of Education, 1997a).

Several additional basic eligibility requirements must be met to qualify for federal financial aid. According to The 1997–1998 Student Guide, a student must:

1. Demonstrate financial need. (Some loan programs are exempt from this qualification.)
2. Have a high school diploma, GED, or other equivalent.
3. Be enrolled (or accepted for enrollment) as a regular student working in an eligible program toward attaining a degree.
4. Have U.S. citizen or be an eligible noncitizen.
5. Possess a valid social security number.
6. Progress academically with satisfactory progress.
7. Sign a statement of educational purpose as well as a certification statement pertaining to overpayment and default.
8. Comply with applicable obligations to register with the Selective Service.

**Calculation of EFC.** As described above, the determination of EFC is based upon information reported in the FAFSA. According to the 1997–1998 Student Financial Aid Handbook (U.S. Department of Education, 1997c):

The EFC is the amount that a family can reasonably be expected to contribute toward college costs. The EFC is based on an analysis of
the family’s financial strength, including the income and assets of the student and student’s spouse or—if the student is a dependent—the student and his or her parents.

The EFC also takes into consideration the number of persons in the household, the number of persons in college, and any additional costs incurred by families wherein both heads of household work. Significantly, for federal financial aid programs, veterans’ educational benefits are considered a resource—not income—in determining the level of financial need (U.S. Department of Education, 1997c). We will return to the treatment of resources below. This means that veterans’ educational benefits are not included in EFC calculations as they are neither assets nor income. As we discussed below, the implication of this accounting is that veterans’ educational benefits do not affect Pell Grant eligibility. However, veterans’ noneducational benefits (Death Pension and Dependency and Indemnity Compensation benefits) and income earned from the Veterans Administration Student Work-Study Allowance Program are included in the EFC as nontaxable income (U.S. Department of Education, 1997c).

The appropriate worksheet used to calculate a student’s EFC is determined by dependency status. According to the 1997–1998 Student Financial Aid Handbook, a student is considered to be independent if he or she meets any of the following criteria:

- Was born prior to January 1, 1974. (The student must be 23 years of age before January 1 of that academic year.)
- Is a veteran of the United States Armed Forces.
- Will be enrolled in a graduate or professional program, beyond a bachelor’s degree.
- Is either a ward of the court (or was a ward of the court until age 18), or both parents are deceased and the student has no adoptive or legal guardian. A student is not considered a ward of the court only because he or she is incarcerated.
- Is married.
- Has legal dependents other than a spouse.
For the purposes of this study, it is important to note that veteran status confers to the student the status of independent student. This change in status affects the method by which EFC is calculated and subsequently affects the determination of a veteran’s financial need. We explain this issue more fully below.

**EFC Calculation for the Dependent Student.** For the dependent student, the EFC has two components: the portion from parental income and assets (excluding the family’s home) and the portion from the student’s income and assets. In calculating the parental contribution, 12 percent of the parental assets are added to the income determined to be available for financing their child’s education. This amount is divided by the total number of children in college for that particular academic year. This is the parental contribution to the EFC. Student contribution is calculated by taking 50 percent of his or her assets and adding this amount to the student’s income that is assessed to be available. The EFC is the sum of both the parental and student contributions (U.S. Department of Education, 1997b).

**EFC Calculation for the Independent Student.** For the independent student, the EFC is calculated based upon the student’s household income and assets.13 Different worksheets are used if the student has dependents other than a spouse. For the student without dependents other than a spouse, the EFC is derived by taxing assets (excluding the family home) at a rate of 35 percent and adding to that sum the income assessed to be available for college expenditures. This sum is divided by the number of persons in college during the relevant academic year. For those with dependents other than a spouse, the asset conversion rate is only 12 percent. Note that across these different statuses, there are differential income protection allowances that vary with dependency status, marital status, and with having dependents other than a spouse (U.S. Department of Education, 1997b).

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13 The Higher Education Act Reauthorization (HEAR), signed into law in October 1998, increases the income protection allowance (IPA) for independent students without dependents other than a spouse. The HEAR changes to the IPA became effective in AY 2000–2001 (Department of Education, Forecasting and Policy Analysis Unit, personal communication in October, 1998).
The differential rates of asset conversion may generate different incentives. First, dependent students’ assets are “taxed” at a much higher rate than are those of their parents (50 percent versus 12 percent). Thus, there may be less incentive to place assets in the student’s name. This disincentive to place assets in the child’s name could be offset by the federal and state tax obligations imposed upon the parents if the assets are in their name. This is necessarily driven by the amount of assets in question, how long the assets are held, and the parents’ tax bracket. Second, the EFC for the student who does not work is lower than the EFC for the working student. Thus, there is a distinct disincentive for student employment or for accumulation of student assets. As students become independent, e.g., through military service, they have a much decreased asset conversion rate. However, they may have more income and assets to contribute to their college expenses. Understanding the implications of this change in dependency status upon a veteran’s ability to qualify for federal financial aid is crucial to understanding the impact of veterans’ benefits upon the total financial aid package composition. Although estimating the effects of this change in status on program eligibility is beyond the scope of this investigation, doing so would contribute a great deal to understanding veterans’ educational benefits.

The Cost of Attendance. The COA is also a factor in assessing student financial need. This COA is determined by methods established by Congress. The COA includes the following: tuition and fees, on-campus room and board (or a housing and food allowance for off-campus students) allowances for books and supplies, transportation, loan fees (if applicable), dependent care, costs related to disability, and miscellaneous expenses. For less than half time attendance, the COA only includes tuition and fees, books and supplies, transportation, and dependent care expenses (U.S. Department of Education, 1997b).

Federal Financial Aid Program Eligibility. For purposes of Pell Grant eligibility, the student’s financial need is simply the difference between the COA and the EFC. For programs other than the Pell, additional considerations are included. According to the 1997–1998 Student Financial Aid Handbook, before allocating aid from campus-based programs, the financial aid administrator must take into consideration all other resources available to the student. Thus, for
all other programs, the maximum amount of aid to be received by campus-based programs is given by the following formula:

Maximum aid from campus-based programs = (Financial need) – (Aid from other resources and federal financial aid programs).

According to The 1997–1998 Federal Student Financial Aid Handbook, resources, as defined by campus-based financial aid regulations, include but are not limited to the following:

- Pell Grant funds
- Other federal financial aid grants and loans
- Scholarships (e.g., athletic scholarships and ROTC)
- Tuition and fee waivers
- Fellowships or assistantships
- Veterans’ educational benefits
- Income from insurance programs that pay for students’ education
- Net income from need-based employment.

Thus, while veterans’ education benefits are not considered in determining Pell eligibility, they must be considered in allocating aid for all other federal financial aid programs, with one recent exception. This exception has resulted from The Higher Education Act Reauthorization of 1998, which stipulates that active-duty MGIB benefits are not to be considered in the determination of subsidized Stafford Loan eligibility. Consequently, although veterans’ benefits do not affect Pell Grant receipt, they are likely to affect the allocation of most other federal financial aid awards.14

The Pell Grant Program. The Pell Grant is awarded to undergraduates who have not earned a BA or professional degree. It is often the foundation on which other types of aid are layered. Significantly, the Pell Grant is the only federal program for which there is a federally

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14These resources may also affect the allocation of state and institutional funds as well. The present analysis cannot address these issues.
guaranteed maximum. Moreover, should the student receive other sorts of aid that when taken together with the Pell Grant exceed the COA, the Pell Grant cannot be diminished. The program functions as an entitlement (Conversations in March and July 1998 with the Department of Education Forecasting and Policy Analysis Unit). This fact, as we will see below, may have important consequences for veterans.

Pell Grant awards are determined by disbursement schedules. These schedules are matrices whose coordinates are the EFC and the COA. There are different schedules for full-time, three-quarters-time, half-time, and less than half-time courses of study. Thus, Pell Grant eligibility and award size depend upon EFC, COA, and whether one is a full-time student. According to the appropriations for the Federal Pell Grant Program for 1997–1998, the maximum award was $2,700 (in nominal dollars). This maximum award was granted to students whose EFC was zero and whose COA was $2,700 or more. The maximum EFC beyond which one could not qualify for a Pell Grant, regardless of the COA, was $2,500. The minimum award was $400 and was available for several combinations of COA and EFC. In general, Pell Awards tend to be smaller as EFC approaches the $2,500 maximum and/or as COA tends toward zero. Pell awards tend to be larger as EFC moves toward zero and/or COA approaches or exceeds $2,700 (POL-97-1, provided by the Department of Education, Forecasting and Policy Analysis Unit).

It should be noted that there are significant differences between the maximum Pell award and the average award. For example, in AY 1995–1996, the maximum award in nominal dollars was $2,340 whereas the average award was only $1,501 (U.S. Department of Education, 1996). See Table 3.6 for the maximum award for AY 1995–1996 and AY 1997–1998 as well as average award data for AY 1995–1996.

State Student Incentive Grant Program. The SSIG is a matching program whereby each state receives an annual allocation of SSIG funds from the Department of Education. This program assists states in providing students who demonstrate financial need with grants for

15The maximum Pell Grant award was $3,000 (nominal dollars) in AY 1998–1999 and $3,125 in AY 1999–2000 (nominal dollars).
postsecondary studies. A percentage of these funds may be used by the state to provide work-study assistance through community-service programs. However, there is extreme variation across states in terms of funding, student eligibility, institution eligibility, and program name. Significantly, although states are not required to include proprietary (for-profit) schools in their programs, 25 states currently make SSIG funds available to students attending such schools. Moreover, while the maximum award that a student may receive is $5,000, in fact, most states set maximums that are significantly lower (U.S. Department of Education, 1997c).

Campus-Based Federal Financial Aid Programs: SEOG, Federal Work-Study, and Perkins Loan Programs. Three federal financial aid programs are campus-based: SEOG, Federal Work-Study, and Perkins Loan Programs. They are called “campus-based” because they are administered directly by the financial aid office at each participating school (although not all schools participate in these programs). The three programs are very different, but they do have some features in common. For all of them, the amount awarded depends on financial need, on the amount received from other sources of aid, and on the amount of funds available at the school in question. Unlike the Pell, these programs do not have federally guaranteed maximums. Every year, participating schools are allocated a certain amount of funds; when they are exhausted, no additional awards can be made for that program for that academic year. Thus, not every eligible student will receive aid from these programs (U.S. Department of Education, 1997a). The local control of the disbursement of these funds also implies that at the extremes, a school receiving these funds may choose to fund as many students as possible with smaller grants or award larger grants to the most needy. The allocation of the funds depends upon the funding objectives of the institution as well as the amount of funds received. Each school has its own set of deadlines and application procedures for aid (U.S. Department of Education, 1997a).

The Federal SEOG also allocates grant aid consistent with the eligibility described above. Pell Grant–eligible students are supposed to be given priority in distribution of SEOG awards, however (U.S. Department of Education, 1997a). In AY 1997–1998, the maximum award was $4,000, considerably in excess of the Pell maximum. However, as with the Pell, there is a considerable difference between the
maximum and average award: In AY 1995–1996, the average SEOG award was only $697 whereas the maximum was $4,000 (U.S. Department of Education, 1996).

The federal work-study program provides both undergraduates and graduate students with employment. Federal work-study jobs pay at least the minimum wage and are available both on and off campus. Federal work-study awards depend upon the following variables: the time one applies, the level of need, and the funding available at one’s school. Although there is no federally regulated maximum award, one cannot earn beyond the federal work-study aid amount determined by the financial aid office. In AY 1995–1996, the average work-study award was $1,307 (U.S. Department of Education, 1996).

The Perkins Loan Program offers low-interest loans (at a constant rate of 5 percent) to both undergraduate and graduate students who demonstrate exceptional need. Although the federal government is the source of these funds, the school is the lender and the loans must be repaid to the school. The maximum amount one can borrow through this program varies depending upon the time of application, the level of need, and the funding level of the school. In AY 1997–1998, one could borrow up to $3,000 per each year of undergraduate study, not to exceed $15,000 for total undergraduate work. As Table 3.6 shows, the maximum loan for the Perkins Loan program did not change in nominal dollars between AY 1995–1996 and AY 1997–1998—which means that in real dollars, the maximum loan decreased. Also, as with other federal awards, there are significant differences between the maximum award and the average award: In AY 1995–1996, the average award was only $1,386 compared with the $3,000 maximum (U.S. Department of Education, 1995; 1996). Repayment of these loans typically begins nine months after leaving school or dropping below half-time status. One has up to ten years to repay these loans (U.S. Department of Education, 1997a).

Direct and FFEL (Federal Family Education Loan) Stafford Loans. According to The 1997–1998 Student Guide, “Direct and FFEL Stafford Loans are the Department's [of Education] major form of self-help aid.” The primary differences between Direct and FFEL Stafford Loans are the sources of funding, application details, and terms of repayment. Direct Stafford Loans are available through the William D. Ford Federal Direct Loan Program, and the FFEL Stafford
Loans may be obtained from the Federal Family Education Loan Program. Whether Direct or FFEL, Stafford Loans (formerly called Guaranteed Student Loans) can take two forms: subsidized and unsubsidized. Subsidized loans are allocated on the basis of demonstrated need and no interest is paid prior to the commencement of repayment or during periods of deferment. During these periods the federal government subsidizes the interest. Conversely, unsubsidized loans are not distributed according to need and recipients are charged interest from the time the loan is disbursed. The interest rate for both subsidized and unsubsidized loans will vary with fluctuations in the federal treasury bill interest rate, but it cannot exceed 8.25 percent. There is a fee of up to 4 percent of the value of the loan, which is deducted proportionately from each (U.S. Department of Education, 1997a).

If one is enrolled in a program to obtain a degree or certificate and is attending at least half time, one may be eligible for a Stafford Loan. Maximum borrowing limits depend upon whether one is dependent or independent. According to The 1997–1998 Student Guide, dependent students had the following yearly borrowing constraints in AY 1997–1998:

- $2,650 for first-year students enrolled at least full time
- $3,500 for those who have completed the first year of study and have at least one full academic year of the program remaining
- $5,500 for those who have completed two years of study and have at least one full year remaining.

Independent undergraduates or dependent students whose parents could not obtain a PLUS Loan had the following yearly borrowing constraints in AY 1997–1998:

- $6,625 for first-year students enrolled full time ($2,650 may be in subsidized loans)
- $7,500 for those who have completed the first year of study and have at least one full academic year remaining (only $3,500 may be subsidized)
$10,500 for those who have completed two years of study and have at least one full academic year remaining (only $5,500 may be subsidized) (U.S. Department of Education, 1997a).

For periods of study that are less than full time, lower borrowing constraints are imposed. Graduate students have higher limits for borrowing. Loans disbursed after July 1, 1994 have the same interest rate and 4 percent fee as described (U.S. Department of Education, 1997a).

As in the case of all other federal programs, except the Pell, the nominal dollar amounts of these programs did not change between AY 1995 and AY 1997. Thus, controlling for inflation, the real purchasing power of these programs diminished. Also, note the comparison between the average subsidized Stafford and unsubsidized Stafford and the maximums for both loan types in AY 1995–1996. (Refer to Table 3.6.) The average is considerably lower than the maximum. The average awards reported and the stipulated maximums are not truly comparable, however, because the average is a composite of individual loans with various borrowing constraints imposed. The average loan award is not broken out according to the tiers of borrowing limits (U.S. Department of Education, 1997a, and U.S. Department of Education, 1996).

**PLUS Loans for Parents.** Upon passing a credit check, parents may qualify for a PLUS Loan. Those who do not pass the credit check may still be eligible under some circumstances. Parents must also meet some of the general requirements for federal financial aid, such as citizenship requirements, and must not be in default or owe a refund to any federal financial aid program. In general, the borrowing constraint for the PLUS program is the annual COA minus any other financial assistance received by the student. For all practical purposes, parents may consider PLUS as a replacement for the EFC. The interest rate for this loan varies with the fluctuations in the federal treasury bill rate but cannot exceed 9 percent. A fee equal to 4 percent of the amount of the loan is assessed and deducted proportionately from each loan disbursement (U.S. Department of Education, 1997a).

**The HOPE Scholarship and Lifetime Learning Tax Credits.** On August 5, 1997 President Clinton signed into law the Taxpayer Relief Act
of 1997, which provided for both the HOPE Scholarship and Lifetime Learning Credits. These programs are not grants or loans; rather, as the enabling legislation suggests, they are a form of tax relief. As such, they involve no application procedures. Broadly speaking, the Relief Act creates a tax credit of up to 100 percent of the first $1,000 of tuition and 50 percent of the second $1,000. This tax credit is available to any taxpayer, either parent or student, who is making qualified educational expenditures. Taxpayers may take this credit for their own expenses or for the expenses of their spouses or dependent children (U.S. Department of Education, 1997e). Since December 31, 1997, this credit has been available on a per-student basis for net tuition and fees (less grant aid and military benefits) paid for college enrollment after December 31, 1997. This credit phases out for joint filers if their income is between $80,000 and $100,000 and for single filers with income between $40,000 and $50,000. The credit can be claimed only in two taxable years. However, those who have gone beyond two years of study may take the Lifetime Learning Credit, according to which 20 percent of the first $5,000 of tuition and fees through 2002 and of the first $10,000 thereafter may be claimed. This credit may be taken for net tuition (less grant aid and military educational benefits) paid for postsecondary education after June 30, 1998. The credit is available on a per-taxpayer (family) basis and is subject to the same phase-out levels described above. (See http://www.ed.gov/inits/hope.) Families may claim the HOPE Scholarship tax credit for some members and the Lifetime Learning Tax Credit for others.

These programs have some drawbacks from the perspective of income distribution, however. First, they provide no benefits for exceptionally financially needy students because only individuals or families with taxable income can take advantage of the program. Second, one can claim only tuition paid less any grants or other types of assistance received. Thus, depending upon EFC and COA, an individual may derive no benefit at all from these programs because it

16The following sources of aid must be deducted from the tuition to obtain “net tuition”: qualified scholarship excludable from gross income under section 117; educational assistance allowance under Chapter 30, 31, 32, 34, or 35 of Title 38, USC, or under Chapter 1606 of Title 10, USC (military educational benefits); payment (other than a gift, bequest, etc.) for educational expenses excludable from gross income. (Taxpayer Relief Act of 1997, http://www.ed.gov/inits/hope/taxact.html.)
would be displaced by other forms of federal financial aid. The program may displace some of the EFC for students with substantial EFC and COA, or it may displace some loan obligations for students whose financial aid packages include various types of loans. It is not yet clear to what extent financial aid offices will alter financial aid packages to account for this program. If financial aid offices attempt to correct for the tax credit in their aid packages, it may be that the gain from the tax credit will be lost elsewhere. Thus, it is not possible at this point to assess the impact of the program and determine who will be most affected by it.17

Variations in Aid. We next explore sources of variation in college COA. These variations should be seen in the light of variations in financial aid. Although it is beyond the scope of this chapter to detail the variations in all sources of aid (federal, state, institutional etc.), we provide a broad outline of the variations in aid. Table 3.7 presents the variation in federal, institutional, and state aid by institutional control and length of program. It details both the percentage of students who received each type of aid and the average award granted. Unfortunately this data source breaks out institutions by public, private not-for-profit, and private for-profit, so the designations of institutional control do not correspond to those used elsewhere in this chapter. Moreover, because the data source does not provide standard errors, we are not able to distinguish statistically significant differences. Nevertheless, these data do provide some sense of the general variability in financial aid sources.18

With respect to federal sources of aid, 24 percent of all students received federal grants. At public four-year schools, the average award was $1,747 compared with $2,032 at four-year private not-for-profit schools. Thirty-six percent of the students in public four-year programs received federal loans (average award of $4,111) compared with 45 percent in private, not-for-profit schools (average loan award

17For a detailed examination of who benefits from the HOPE Scholarship tax credit, see Cronin (1997).

18For further information about state aid, the reader should consult John B. Lee and Suzanne B. Clery, State Aid For Undergraduates in Postsecondary Education NCES 999186, 1999. For further information about institutional aid, consult Lee and Clery, 1997.
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<td></td>
<td>(70%)</td>
<td>(52%)</td>
<td>(52%)</td>
<td>(0%)</td>
<td>(5%)</td>
<td>(13%)</td>
<td>(6%)</td>
<td>(8%)</td>
<td>(5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Two-year</td>
<td>$4,946</td>
<td>$1,557</td>
<td>$4,268</td>
<td>Very low</td>
<td>$4,652</td>
<td>$1,429</td>
<td>$1,063</td>
<td>$2,178</td>
<td>$1,926</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>(71%)</td>
<td>(46%)</td>
<td>(57%)</td>
<td>(1%)</td>
<td>(6%)</td>
<td>(6%)</td>
<td>(5%)</td>
<td>(14%)</td>
<td>(12%)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>


NOTE: The category “Any” comprises grants, loans, work-study, and other sources of aid. Average amounts are calculated for those who received the specified aid type. Amounts in nominal dollars.
While average work-study awards were similar across the two types of institutions ($1,343 versus $1,288), the percentage of students receiving them seemed quite different (4 percent versus 15 percent). PLUS loan access also seemed to vary across the two types of schools: Although 3 percent of students at public four-year institutions received PLUS loans (average award of $5,294), 6 percent of students in private not-for-profit schools received PLUS loans (average award of $7,748).

There were also dramatic differences in access to federal aid between public two-year schools and private for-profit two-year schools. Whereas 22 percent of students in public two-year schools received aid (average award of $2,647), among private for-profit two-year schools, 71 percent received aid (average award of $4,946). For federal grants, the average awards received by students in these two types of institution were often comparable, but the percentage of students receiving such aid varied dramatically. For example, although 17 percent of students in public two-year schools received federal grants (average award of $1,473), 46 percent of students in private, for-profit, two-year schools received federal grants (average award of $1,557). With respect to federal loans, 8 percent of students in public two-year schools received such loans (average award of $3,070), compared to 57 percent of students in private for-profit two-year schools (average award of $4,269).

Institutional aid varied greatly across school type. Whereas 16 percent of students in public four-year schools received any aid (average award of $2,263), 43 percent of students in private not-for-profit four-year schools received any aid (average award of $5,140). Among public four-year schools, 13 percent received grants (average award of $2,176). Conversely, 41 percent of students in private not-for-profit schools received grant aid (average award of $4,967). Turning to two-year schools, 8 percent of students in two-year public schools received any aid (average award of $564) whereas 6 percent of students in two-year private for-profit schools received any aid (average award of $1,429). Among two-year private schools, 7 percent of students received grants (average award of $577); in private for-profit schools, 5 percent received grants (average award of $1,063).

State aid access also varied across institution types. Among four-year schools, 14 percent of students received any state aid (average award
of $1,685) compared with 22 percent of students in private for-profit schools (average award of $2,079). Thirteen percent of students in public four-year schools received state grant aid (average award of $1,620) compared with 22 percent of students in four-year private for-profit schools (average award of $1,984). As with other types of aid, variation was noted among two-year schools as well. Whereas 6 percent of students in public two-year programs received any state aid (average award of $808), 14 percent of students in private for-profit two-year schools received any aid (average award of $2,178). Similarly, 6 percent of students in public two-year schools received state grants (average award of $768) compared with 12 percent of students in private for-profit two-year schools (average award of $1,926).

Although some of this variation seems dramatic, one should keep in mind that these differences may not be statistically significant. In addition, need-based financial aid is driven in part by costs of attendance. Thus, some of this variation may be explained by differences in costs of attendance between public and private institutions. However, Table 3.7 does cast some light on the sources of variation of access to different types of financial aid across institution types. These findings should be kept in mind when we present materials on college costs in the next section.

Financial Aid: The Big Picture

So far, we have discussed several military educational programs as well as federal financial aid programs and their eligibility requirements. It is important to see how these various programs fit together and interact and to understand the types of commitments and procedures that inform colleges’ admission policies and financial aid offices’ “bundling” strategies. In this subsection we address these issues and attempt to draw a big picture of admissions, financial aid policies, and the interactions among various types of financial aid.

Because packaging approaches vary across schools, this discussion cannot provide information beyond the most general philosophies underpinning bundling or packaging strategies. To navigate through this complicated issue, we have relied upon Chapter 2 of the 1997–1998 Student Financial Aid Handbook, published by the Department of Education Office of Postsecondary Education (U.S. Department of
Education, 1997c). This handbook may be understood as a set of guidelines for financial aid professionals. The handbook describes “packaging” as the process of finding the best combination of aid to meet a student’s financial need, given limited resources and given institutional constraints that vary from school to school. Even if a particular school does not participate in the campus-based programs discussed above, its students may still be eligible for some federal aid, such as a Pell Grant or the various loan programs. If a school does have access to other sources of aid, the financial aid administrator must decide the best way to allocate scarce funds depending upon the school’s policies and the student’s need. The handbook lists several questions that the administrator should consider when packaging aid:

- Should priority be given to students who apply first (a “first-come-first-served” philosophy)?
- Should grant aid be given to first-year students while loans and work-study should be given to students who have “had a chance to adapt to the academic program”?
- Given scarce resources, should the school’s policy be to help the neediest or to provide an equal proportion of every student’s need?
- Most provocatively, the handbook raises the issues of the makeup of the student body and the characteristics of the school’s academic programs as affecting packaging procedures. However, the handbook does not expand upon these issues in any detail.

In a review of The Student Aid Game by Michael McPherson and Morton Shapiro, Donald Kennedy, president of Stanford University in the late 1980s, elaborates on two significant financial aid policies: need-blind admissions and building a class. He expresses concern that the policy of “need-blind” admissions—the practice of admitting students without considering financial need—is quickly becoming infeasible. Such policies, he states, are expensive and require the support of endowments that are shrinking in real terms at many institutions. What underlies the need-blind admission policies is the belief that diversity (in terms of socioeconomic status, race, talents, etc.) is an asset. Financial aid policies permit the cultivation and pro-
tection of this asset by allowing institutions to “compose, rather than merely admit, a first-year class.”

Yet, as Kennedy explains, most colleges and universities are finding that need-blind policies are too costly at a time when the gap between the ability to pay and soaring tuition is widening and discretionary institutional resources are contracting. Driven by the bottom line to fill classrooms and dorms, financial aid may turn into “merit aid” to attract good students while denying aid to those applicants who seem most enthusiastic about an institution. Another emerging practice is “gapping”—whereby some students are offered less aid than the standardized federal means test suggests (Kennedy, 1998; Shenk, 1997). These insights into funds allocation have an important implication for this study, which we discuss next.

In Appendix E, we present examples of packaging approaches at two universities whose policies are available on the web. These policies are compared with a packaging strategy suggested by persons at the Department of Education, a useful exercise in several respects. First, as these examples demonstrate, the Pell Grant is the foundation upon which all other aid is layered. In fact, according to the Department of Education Federal Student Aid Information Center, this appears to be the case in general. Second, these policies demonstrate differing uses of the various types of aid. Third, as the variation in bundling strategy illuminates, a simple modeling of financial aid packages is impossible.

**Impact of Veteran Status on Financial Aid Packaging.** Having considered some of the broader motivations and structural possibilities for assembling aid packages, we need to understand how military aid benefits figure into these packages. As noted above, the variation across institutions in structuring financial aid packages poses significant difficulties in assessing the impact of veterans’ benefits on financial-package composition. General models of aid packaging are not feasible given the different strategies of layering and funds distribution.\(^{19}\) It appears that attempts to model financial aid packages

\(^{19}\)The Program Analyst in the Forecasting and Policy Analysis Unit at the Department of Education explained that the extreme local variation in bundling strategies has made it difficult for the Department to create computer-based tools for students to predict their aid packages.
and the impact of veterans’ benefits must necessarily be institution-specific. Despite the variation across states and institutions, however, some clear areas of impact may be noted.

First, veteran status confers on the student the status of independent student. This in turn affects the method of calculating the student’s EFC and determining financial need and subsequent Pell Grant and other federal financial aid program eligibility. It is not entirely clear how eligibility will change: We cannot say that this status change renders a veteran more or less likely to qualify for particular aid programs. The issue is complicated by the fact that veteran eligibility is also affected by several other factors: e.g., the veteran’s marital status, assets held and income earned during the year he or she applies for aid, whether the veteran has dependents, and so forth.

Second, although veterans’ benefits are not included in the EFC calculation, they must be reported in the FAFSA. This accounting of veterans’ educational benefits has several consequences. Because veterans’ benefits do not affect EFC calculation or Pell eligibility, qualified veterans may receive the Pell Grant in addition to their veterans’ benefits.20 (The Pell Grants are never adjusted to take other types of aid into consideration (U.S. Department of Education, 1997c).) But these educational benefits are treated as resources that financial aid administrators must consider when determining eligibility for other federal financial aid programs and when bundling aid packages. Thus, it is likely that veterans’ educational benefits will displace other forms of aid for which the veteran would have qualified in the absence of veterans’ benefits.

On the one hand, it is possible that military educational benefits would simply displace other grants from the aid bundle (e.g., SEOG, SSIG, institutional grants) that veterans would have received had they not participated in the military. On the other hand, it is possible that the benefits would replace loans. The latter possibility is important given the shift in financial aid paradigms from grant-based programs to loan-based programs. Thus, one important question—which the available data cannot address—is whether veterans leave

20Although veterans’ benefits are not to be considered in determining Pell eligibility, an article in the Army Times claimed that officials in Congress and the DoD maintain this is often done nonetheless (Daniel, 1998).
postsecondary education with less debt than do nonveterans. Work done by Klein et al. (1992) in assessing the impact of the Lilly Endowment Educational Awards (LEEA) suggests that the likely main effect of the LEEA program was a reduction in a students’ loan burden, not an increase in participation rates or an expansion of options with respect to the schools students could attend.

The possibility that veterans’ educational benefits displace other aid sources motivated the House of Representatives to introduce H.B. 6 (the House version of HEAR) in 1998. This bill proposed to exclude veterans’ benefits from the determination of financial need. Note that the law stipulated that veterans’ educational benefits must be counted as a resource when determining eligibility for campus-based programs and when determining financial need and eligibility for need-based Direct Loans or Federal Family Education Loans. This proposal would have precluded veterans’ benefits from displacing other types of grant aid. The version of HEAR that was signed into law (Public Law 105-244) was much diminished relative to the House version. Effective October 1, 1998, active-duty MGIB benefits (benefits under Chapter 30 of Title 38) are no longer counted toward the determination of eligibility for subsidized Stafford Loans. It is not clear yet whether the MGIB portion of the CF is protected under this provision.

For all other programs (except the Pell), veterans’ benefits continue to be included in the adjustment of financial need determination. Therefore, HEAR primarily impacts veterans’ ability to expand their loan aid through subsidized Stafford Loans (Department of Education, Forecasting and Policy Analysis Unit, personal communication October, 1998).

Third, the structure of these educational benefits may create incentives that distort the ways that veterans select postsecondary education institutions. Because veterans’ educational benefits are paid on a monthly basis regardless of the cost of attendance (monthly payments are greatest for full-time students), individual veterans may select a less expensive institution, allowing them to pocket the difference between the award and COA. This creates incentives for students to make decisions based on the cost of the schools rather than their quality. (It is not our intention here to imply any correlation between attendance costs and quality. We are merely suggesting that
cost and quality are two metrics that students use in making attendance choices.)

The work of Klein et al. (1992) suggests a fourth area of impact. Investigating the effects of LEEA in Indiana, they found that, as a result of equity packaging, all recipients of financial aid benefited from the LEEA programs—not only the students who were awarded LEEAs. This benefit to all financial aid recipients arose principally because the program increased the total amount of funds distributed to gift-aid recipients. Klein et al. make several inferences based on the program and college financial policies. All things being equal, a school may prefer in-state students with financial need because they bring with them state and possibly LEEA dollars, whereas needy out-of-state students with need will not bring in such funds. Thus, colleges use less of their own discretionary funds to assist needy in-state students and are more generous with these funds to out-of-state students. Consequently, state and LEEA gift aid permits colleges to attract qualified out-of-state students who are financially needy. These funds also permit the colleges to attract desirable students who do not qualify for Pell, state, or LEEA grants.

Klein and his colleagues suggest a further avenue of speculation. In light of the operation of financial aid programs, military education programs may have benefits that extend beyond financing and beyond the recipients of military educational benefits. Often cited are concerns about the continuation/disappearance of need-blind admissions policies (“Questions to Ask the Financial Aid Officer,” 1997; Reich, 1998; Kennedy, 1998). “Questions to Ask the Financial Aid Officer” recommends that “if you are on the borderline as far as needing financial assistance is concerned, it may be in your best interest NOT to apply for financial aid when applying to a school that doesn’t have need-blind admissions.” If this concern is warranted, a veteran with these benefits may be a more attractive admissions candidate than an equally college-capable individual without these resources. Thus, veterans’ benefits may have some marginal effect on one’s chance of admission: All else being equal, a school may prefer a

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21Equity packaging is an aid packaging policy that ensures that two needy students attending the same school with the same COA and EFC will receive the same amount of gift aid (Klein et al., 1992).
veteran with benefits to a financially needy student who lacks such resources.

**ESTIMATING COLLEGE COSTS OF ATTENDANCE**

Recently, some observers have questioned the adequacy of the purchasing power of military educational benefits, particularly the MGIB (Maze, 1998a; 1998b; 1999) and have offered suggestions aimed at expanding or altering the programs in a number of ways (Report on The Congressional Commission on Servicemembers and Veterans Transition Assistance, 1999). Such concerns bring to the fore the importance of contextualizing the purchasing power of these benefits over time with respect to the movement of college costs of attendance. In this section, we examine several aspects of postsecondary education costs to enable our analysis of two important programs, the active duty MGIB and CF, in the next section. Our analyses of the in-state tuition and fees data suggest that there are four types of variations that attract attention: variation across time, across the various states, across types of programs at institutions, and across types of institutional control (public versus private). To assess the degree to which military and civilian financial aid benefits have kept up with college costs of attendance over the past several years, we examine variation in COA across time. We present college COA trends since 1990. All averages for tuition and fees and other costs are enrollment weighted in this section unless otherwise stated.

We next examine the variation in educational costs of attendance across states and territories. Because costs of attendance vary widely across states, these state-level data may allow us to identify states that are less or more fully served by existing benefit programs. Identifying the cost characteristics of various states may also provide insight into better allocation of recruiting resources. State cost environments are also important because the Guard Bureaus offer benefits that vary on a state-by-state basis, and some states even offer specific programs for members of the reserve components of the military.

Finally, we analyze the variation across school types (public versus private) and whether the highest degree granted (HDG) is an AA or BA. Costs of attendance vary greatly across private and public institutions and across the various types of programs, characterized by
HDG. Looking at college costs of attendance according to the type of institutional control and degree program will cast light on which types of programs and institutions are most affordable under present financial aid programs.

**Institutional Data Collection and Analysis**

The data used in this analysis capture three main characteristics of postsecondary education institutions over the period AY 1990–1996: tuition and fees, room and board charges, and enrollment. The raw data contained 30,121 schools in the seven-year period, averaging 4,303 schools per year. However, we dropped schools for which there were no data on tuition and fees, enrollment, or numbers of BAs, AAs, or certificates awarded in any given year. Thus the final data set contained 19,912 institutions in all seven years, averaging 2,845 schools per year. Among the schools in the final sample, 49 percent were public (9,826) and 51 percent were private (10,086). As described in Appendix D, AY 1996–1997 data were used to project cost estimates out to AY 1997–1998.

We obtained institutional-level data on tuition and other costs of attendance, enrollment, and degrees granted from Web-based Computer Aided Science Policy Analysis and Research (WebCASPAR). The sources of the WebCASPAR data are the following:

- Enrollment data are taken from the IPEDS Fall Enrollment Survey (1967–1996).
- Earned degrees data are taken from the IPEDS Completions Survey (1966–1996).

The Integrated Postsecondary Education Data System (IPEDS) is conducted by the Department of Education’s National Center for Education Statistics (NCES). Whereas the NCES universe contains all schools, the WebCASPAR universe contains only institutions accredited by an agency or association that is recognized by the Department of Education.
The following general information was drawn from WebCASPAR at the institutional level: institution’s name, Federal Interagency Commission on Education (FICE) Code,22 Carnegie Code,23 State, Institutional control (public versus private), and HDG. (For further information about the data collection and analysis process, see Appendix D, Data Collection and Analysis.)

As discussed in the second section, the COA is an important determinant of a student’s financial aid eligibility. We approximate the COA with the variable “total cost,” which we created by adding tuition and fees, typical board charge (dormitory), and typical room charge (dormitory). Thus, “COA” refers to the Cost of Attendance as calculated by financial aid entities and “total costs” refers to our approximation of the COA. This total cost variable was created only for schools with non-zero data reported for all of the above variables and only for schools granting at least a BA. (Schools that grant an AA as their highest degree do not generally offer room and board to students.) Because we had extensive data only on dormitory costs, this variable reflects room and board charges on campus. (See Appendix D for further information about this variable.)

Variations Across Time

Tuition and fees have risen significantly at both public and private institutions over the past decade. The percentage increase observed in tuition across time varies greatly depending on the source of data and the subset of schools examined. Analysis of our data indicates that between AYs 1990 and 1996 the mean enrollment-weighted tuition and fees among all private institutions increased nearly 18 percent in real terms, whereas among all public institutions it

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22FICE codes are assigned only to accredited postsecondary education institutions. Across time, a school may have several FICE codes.

23Carnegie Codes date to 1970 and were developed by the Carnegie Foundation for the Advancement of Teaching. These codes have been included in IPEDS data to help users of the data identify institutions by type. The codes attempt to characterize the missions of the schools and are not meant to measure quality.
increased by 31 percent.\textsuperscript{24} (All amounts have been normalized to 1998 dollars.)

Figure 3.1 presents the enrollment-weighted averages for in-state tuition and fees across the years AY 1990–1996 as well as our inflated estimates of AY 1997–1998 (in 1998 dollars), as described in Appendix D. As Figure 3.1 indicates, both private and public mean tuition and fees have large variance.

Figure 3.2 presents the growth in total costs of attendance for AYs 1990–1996 as well as our estimates for AY 1997 (in 1998 dollars). (Recall that total costs of attendance were estimated only for schools granting at least a BA.) Among private schools in our data, total costs of attendance between AY 1990 and 1996 grew at a real rate of 17 percent; for public schools the rate was 15 percent in real terms. The variance in the enrollment-weighted yearly averages for total costs of attendance is great for both types of 4-year institutions.

\textbf{Variations Across States}

Tremendous variation exists in costs of attendance across states and types of institutional control. Figures 3.3 and 3.4 illustrate the yearly tuition across states for both public and private institutions in AY 1996, the last year of data in our sample. For instance, in AY 1996 among all public institutions, California’s enrollment-weighted mean tuition and fees were the lowest (slightly under $1,300) whereas Vermont’s were the highest (slightly less than $6,000). Among private institutions in AY 1996, Puerto Rico had the lowest mean tuition and fees (nearly $3,200); Massachusetts’s state average was the highest (nearly $18,000). (All dollar amounts are in 1998 dollars.) Because these data are state averages over all public and private schools, the differences across the states may result from different mixes of two- and four-year institutions in each state.

\textsuperscript{24}Using NCES data reported in the \textit{Statistical Abstract} for all institutions of higher education, we calculated a 21 percent increase in tuition for all private schools and an increase of 34 percent for all public schools over the same period.
Figure 3.1—In-State Tuition and Fees, AY 1990–1991 to AY 1997–1998

Figure 3.2—Total Costs of Attendance: In-State Tuition and Fees, Dormitory Room and Board Charges, AY 1990–1991 to AY 1997–1998

SOURCE: WebCASPAR.
In-state tuition and fees (1998 dollars)

\begin{align*}
\text{CA} & : 3,000 \\
\text{NV} & : 1,900 \\
\text{WY} & : 1,600 \\
\text{DC} & : 1,000 \\
\text{TN} & : 9,800 \\
\text{PR} & : 8,500 \\
\text{MS} & : 7,200 \\
\text{GU} & : 6,000 \\
\text{NE} & : 5,000 \\
\text{WA} & : 4,000 \\
\text{AL} & : 3,000 \\
\text{AR} & : 2,000 \\
\text{LA} & : 1,000 \\
\text{TT} & : 0 \\
\text{CO} & : 25,000 \\
\text{ND} & : 20,000 \\
\text{MT} & : 15,000 \\
\text{SD} & : 10,000 \\
\text{OR} & : 5,000 \\
\text{VA} & : 0 \\
\end{align*}

Error bars indicate 1 standard deviation

SOURCE: Analysis of WebCASPAR data.

Figure 3.3—AY 1996 In-State Tuition and Fees: All Public Institutions

\begin{align*}
\text{PR} & : 25,000 \\
\text{ID} & : 20,000 \\
\text{AR} & : 15,000 \\
\text{DE} & : 10,000 \\
\text{ND} & : 5,000 \\
\text{KY} & : 0 \\
\text{AK} & : 25,000 \\
\text{KS} & : 20,000 \\
\text{SD} & : 15,000 \\
\text{NV} & : 10,000 \\
\text{NE} & : 5,000 \\
\text{WV} & : 0 \\
\text{NM} & : 25,000 \\
\text{GA} & : 20,000 \\
\text{FL} & : 15,000 \\
\text{WI} & : 10,000 \\
\text{OH} & : 5,000 \\
\text{IL} & : 0 \\
\text{CO} & : 25,000 \\
\text{LA} & : 20,000 \\
\text{PA} & : 15,000 \\
\text{NY} & : 10,000 \\
\text{RI} & : 5,000 \\
\text{VT} & : 0 \\
\end{align*}

Error bars indicate 1 standard deviation

SOURCE: Analysis of WebCASPAR data.

Figure 3.4—AY 1996 In-State Tuition and Fees: All Private Institutions
Variation Across School Type

We observed significant differences in tuition across institutional control and whether the HDG was an AA or a BA. Table 3.8 provides enrollment-weighted average values of in-state tuition and fees for AY 1996, the last year of data in our sample. In AY 1996, among private two-year schools, average tuition was more than four times as high as among public two-year schools. Similarly, among BA-granting schools, the average tuition in private schools was more than four times higher as it was at public institutions.

Table 3.8
In-State Tuition and Fees for AY 1996

<table>
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<tr>
<th>Institutional Control</th>
<th>All Schools with Tuition and Fees</th>
<th>Number of Schools</th>
</tr>
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<td>Enrollment Data</td>
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<td>AA-granting schools</td>
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</tr>
<tr>
<td>Public</td>
<td>$3,077</td>
<td>547</td>
</tr>
</tbody>
</table>

SOURCE: Analysis of WebCASPAR data.
NOTE: All amounts in 1998 dollars.

HOW DO AID PROGRAMS COMPARE WITH COLLEGE COSTS OF ATTENDANCE AND WITH EACH OTHER?

This section compares active-duty military educational benefits with college costs of attendance. First, we look broadly at the various civilian and military programs. Then we concentrate on the MGIB and CF programs and their purchasing power with respect to costs of attendance. We compare the MGIB and CF with college costs of attendance using two metrics. After describing these metrics, we evaluate the MGIB with respect to tuition and total costs of attendance using the first metric. We then compare the maximum CF benefit with tuition and total costs of attendance using the first metric. Finally, we analyze the MGIB and CF employing the second metric.
Comparisons Among Financial Aid Programs

To contextualize costs of attendance, this subsection draws comparisons across different financial aid programs offered by the military and by federal programs. First, we compare the maximums of several programs with estimated average public- and private-school tuition. Later, to contextualize growth in college tuition, we compare growth in tuition costs faced by students with growth in several civilian and military financial aid programs. Because the types of programs being compared are quite different, a discussion about these program data is in order.

Facile comparisons across programs and between programs and costs are difficult because the conditions and terms of participation and eligibility are generally very different. For example, although there are federal maximums for programs like SSIG and FSEOG, only the Pell has a federally guaranteed maximum. Moreover, the average award is very different from the program maximum. Further, while in some ways the MGIB and CF benefits most resemble grant aid because they do not have to be repaid, maximum awards for these service-related benefits are obtained only after fulfilling specific terms of military duty. Moreover, participants in the MGIB and CF programs must pay $1,200 to participate.

Thus, if we hope to assess the relative value of the MGIB (or other military benefits) and federal financial aid programs to the high school student evaluating his or her options, we should perform some type of cost-benefit calculation. Although such a calculation is beyond the scope of this chapter, below we discuss some important considerations in determining the relative value of these different options and the choices that they may imply.

The real value military benefits relative to civilian benefits must reflect many other aspects associated with military service as well as consequences of the decision to pursue postsecondary education after high school or after completing military service. To illustrate the complexity of these tradeoffs, let us assume a ten-year period after high school for two students. One goes straight to college and the second youth goes to the military, fulfills a three-year term in the military, and then goes to college. Both attain BAs.
The youth who goes to college after high school immediately forgoes four years of labor force opportunity. Upon applying for financial aid as a dependent student, she may receive some or no financial aid and may even take out considerable loans to finance her education. She may work during the school year and during the summers. Upon finishing her BA, she enters the labor market and receives the college premium for the remaining six years in our assumed period.

The youth who enlists with the active-duty military receives active-duty wages, labor-market experience, tuition assistance while on active duty, and possibly tuition credit for experience garnered during service when she does go to college. She applies for financial aid as an independent student before her term ends and may receive grant aid or loan aid. Upon completion of her term and assuming she satisfied MGIB criteria, she enters college with the MGIB and possibly other forms of financial aid. Although she may work part-time during the school year and summers, she too generally forgoes time in the labor force to attain her BA. She enters the labor market with her BA, receives the college premium and likely will receive a further premium owing to her military-based job experience. She then works for the three remaining years in this assumed period.

In analyzing these two paths, we see that the high school student who goes straight into postsecondary education has lower opportunity costs to attending postsecondary education than does the veteran, because the veteran generally will receive a higher wage in the labor market when she completes her term. At the end of our assumed ten-year period, the student who went straight to college has six continuous years of experience receiving the college premium in the labor force. The veteran has three years of enlisted military service and three post-baccalaureate years of work experience receiving both the college premium and probably a “military service premium” as well. However, it is not necessarily obvious how the earning potential of these two individuals would compare at the end of the ten-year period.

It is obvious from this description of the two possible paths that the determination of the real value of military education benefits is very complicated from the perspective of an individual considering enlisting for those benefits. Thus, we must take care when comparing civilian and military financial aid awards because of the different
nature of the programs and their associated costs and benefits, as well as the implications these decisions have upon future earnings.

Moreover, comparing these aid programs to costs of attendance may also be misleading in some key ways. As discussed above, institutional aid is the fastest growing source of aid and some have suggested that discretionary income generated through tuition increases is funneled into financial aid packages. Thus, it is not clear how many students actually pay the “ticket price” of college attendance.

Comparisons across program maximums, although problematic, do provide some sense of how these programs stack up to each other and to college costs of attendance. Figure 3.5 presents estimates for AY 1997–1998 public- and private-school tuition and fees, FY 1998 military benefits, several federal grant- and loan-based programs, and the Hope Scholarship Tax Credit. Although comparing program maximums is problematic for the reasons described above, it is clear that active military educational benefits far exceed both the Pell and FSEOG grant awards as well as the Hope Tax Credit maximum awards. The MGIB and CF benefits even exceed the average subsidized loan programs (Perkins and Stafford) and the average unsubsidized Stafford Loan. Only the CF exceeds the average PLUS loan. (However, recall that the PLUS loan is taken out by the parents.) This crude analysis stresses the differences in the magnitude of these programs and does not consider the interactions among them.

Table 3.9 compares growth in tuition with growth in several key programs. Generally we compared data between AY 1990 and AY 1998 for all programs except the unsubsidized Stafford Loan program, which only became available in 1992. Because this period extends beyond our data, we used data reported in the Statistical Abstracts. As noted in Table 3.9, the growth in tuition costs faced by students was 28 percent in all private schools and 40 percent in public schools between AY 1990 and AY 1998. Both the average and the maximum Pell award grew 5 percent between AY 1990 and AY 1998. However, the average and maximum FSEOG award contracted by 25 percent and 20 percent, respectively. While the average Federal Perkins Loan contracted by 6 percent and the average subsidized Stafford Loan grew over 5 percent during AY 1990 and AY 1998, the average unsubsidized Stafford Loan grew by 66 percent between AY
Figure 3.5—Comparison of Benefit Levels and In-State Tuition and Fees, AY 1997–1998 (FY 1998)

1992 (the start of the program) and AY 1998. The PLUS loan expanded by 64 percent in this period. Notably, the maximum MGIB award grew by 41 percent in this period and the CF award grew by 27 percent. Thus, the MGIB program kept pace with tuition growth for all public and private schools in this period. The CF program’s growth was comparable to the growth observed in tuition charges across all private schools.

Therefore, both the MGIB and CF programs experienced growth in this period that was comparable to the average tuition among all private schools, while the MGIB even grew at a rate comparable to the higher growth rate observed for public schools. However, federal grant programs and subsidized loan programs (e.g., Perkins and subsidized Stafford Loans) lagged dramatically behind tuition
Table 3.9
Percentage Change Observed Between AY 1990 and AY 1998

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>All private</td>
<td>28</td>
</tr>
<tr>
<td>All public</td>
<td>40</td>
</tr>
<tr>
<td>Maximum MGIB award</td>
<td>41</td>
</tr>
<tr>
<td>Maximum Pell award</td>
<td>5</td>
</tr>
<tr>
<td>Average Pell award</td>
<td>5</td>
</tr>
<tr>
<td>Average FSEOG award</td>
<td>-25</td>
</tr>
<tr>
<td>Maximum FSEOG award</td>
<td>-20</td>
</tr>
<tr>
<td>Average Federal Perkins Loan</td>
<td>-6</td>
</tr>
<tr>
<td>Average subsidized Stafford Loan</td>
<td>5</td>
</tr>
<tr>
<td>Average unsubsidized Stafford Loan</td>
<td>66</td>
</tr>
<tr>
<td>Average PLUS loan</td>
<td>64</td>
</tr>
</tbody>
</table>


growth. On the other hand, growth in unsubsidized loans (PLUS and unsubsidized Stafford) far exceeded the average tuition growth for both public and private schools.

While it is a useful exercise to compare award magnitude and growth in these programs, one should keep in mind that all the programs may be considered components of a financial aid package that will be assembled along with other sources of aid in consideration of both the student’s financial need and the philosophical and policy commitments of the relevant institution. Thus to ask how these programs compare is to address only one dimension. We must also understand how the programs interact and under what circumstances. To more fully understand the impact of military educational benefits, we need to understand how these benefits fit into an overall package of aid. Although we cannot address this concern with our present data, it is the subject of future inquiries.
Comparing Active-Duty Educational Benefits to College Costs of Attendance

We used two metrics to assess how military benefits compare with college costs of attendance. Using both metrics, we compared the maximum MGIB award and CF award with tuition and fees as well as with total costs of attendance. In this analysis, we focused on AY 1997–1998 (FY 1998). We compared college costs of attendance for AY 1997–1998 with military benefits applicable during FY 1998. (In this section we use our estimates for AY 1997–1998.)

The first metric assesses purchasing power from the perspective of the student. It asks how many schools in a “state” can be purchased by the maximum award for both the MGIB and CF in AY 1997–1998. (By “state” we mean the 50 states, the District of Columbia, Guam, the Virgin Islands, Puerto Rico, and the Trust Territories. Henceforth, we will simply use “state” to refer to all of these entities.) For this metric, we did not weight by enrollment. Instead, we divided in-state tuition and fees for each state into quartiles and indicated by horizontal lines on the graphs the FY 1998 values of the MGIB and CF. We performed analyses for both public and private schools and further distinguished schools on the basis of the highest degree granted (AA or BA). We performed the same analysis for total costs of attendance, which were estimated only for those schools with HDG of at least a BA.

The second metric is the ratio of the maximum benefit amount (MGIB or CF) and the cost variable under consideration—either enrollment-weighted tuition and fees or enrollment-weighted total costs of attendance. As with the first metric, we performed separate analyses for public and private schools and further distinguished schools by their HDG.

Although these metrics are similar, they shed light on the subject in different ways. The first metric permits an analysis from the student’s

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25We did not perform this analysis with the uniform tuition assistance program because its maximum annual award of $3,500 (in 1998 dollars) is comparable to the maximum annual MGIB benefit of $3,959 (in 1998 dollars).

26Depending upon the school type (public/private and HDG), different states and school samples survive the exclusion criteria. This is true for both evaluation metrics.
vantage point: The student probably considers the price tag of the schools in her state. This metric assesses the proportion of schools in any given state that a student may attend using the MGIB or CF benefits.

With the second metric, we ask a different question of our data: What percentage of the enrollment-weighted state average of tuition or total costs of attendance may be purchased with these benefits? This approach is sensitive to schools whose costs of attendance are outliers in the distribution. (This effect may be somewhat mitigated by enrollment-weighting if these outlier schools have a small percentage of the state’s overall enrollment.) The second metric does not provide a detailed picture of the student’s opportunity in any given state, but it does provide general insight into which states are more affordable given the student’s benefits.

**MGIB Versus Quartiles of Tuition and Total Costs of Attendance: Metric 1.** We first compare the MGIB benefits with estimated public two-year school tuition and fees. As depicted in Figure 3.6, MGIB benefits cover all or nearly all in-state tuition and fees among public AA-granting schools in all but seven of the 53 states in the sample. Nevertheless, MGIB benefits cover tuition and fees in 50 percent of the schools in two of those seven states and 75 percent of the schools in another three of those seven states. (Some states have few schools in the various categories. The number of schools for each state in each category is listed in Appendix C.) Figure 3.7 depicts the quartile breakdown of tuition and fees for private AA-granting schools compared with MGIB benefits. Among private AA-granting schools, MGIB benefits cover all tuition and fees for all schools in only three states. In ten states, MGIB benefits cover tuition and fees associated with the first quartile (25 percent of the schools in the given state). In six states, the benefits cover tuition and fees of the second quartile and in three states, they cover tuition and fees of the third quartile. Thus, MGIB benefits do not go far in purchasing private AA degrees but cover tuition costs faced by students in public AA-granting schools in the vast majority of states.

Figure 3.8 contains the quartile composition of estimated tuition and fees of public BA-granting schools for each state in AY 1997. As shown, MGIB covers all tuition and fees in 32 of the 54 states. Of the
Figure 3.6—Tuition and Fees: Public Two-Year Schools, AY 1997

Figure 3.7—Tuition and Fees: Private Two-Year Schools, AY 1998
remaining 22 states, MGIB covers tuition and fees of three-quarters of the schools in four states and half the schools in 14 states. Figure 3.9 represents quartiles of tuition and fees estimated for private BA-granting schools for AY 1997. It shows that MGIB benefits do not cover tuition and fees of the fourth quartile in any state. Moreover, these benefits cover tuition and fees associated with the first quartile (one-fourth of the schools) in only five states and tuition and fees associated with the second quartile (50 percent of the schools) in only one state. Indeed, in most states, the MGIB benefits cover less than half of tuition and fees of those colleges in the first quartile. As with private two-year programs, the MGIB benefits cover a small fraction of the costs associated with tuition and fees in most private BA-granting schools in most states. However, MGIB benefits cover tuition and fees of BA-granting programs in most schools in most states.

Although MGIB benefits tend to cover most costs associated with public-school tuition and fees, they do not cover schools’ total costs.
of attendance. Figure 3.9 depicts the quartile composition of our estimates of total costs of attendance for public and private BA-granting schools and the maximum MGIB benefit level. Even among public schools, the MGIB benefits do not cover total costs in all schools in any state. Indeed, among public schools in all states, MGIB benefits do not cover total costs associated with the first quartile of schools. Surely, MGIB benefits cover fewer total costs associated with attending private, BA-granting schools. MGIB benefits do not cover even half of the total costs associated with schools in the first quartile in most states.

Thus, the MGIB goes a long way in paying for college tuition at public schools in the majority of states. However, MGIB benefits do not go very far in purchasing tuition at private schools. When we evaluate the ability of MGIB to cover total costs of attendance incurred, we see that MGIB does not fare well among public schools and is even less helpful among private schools.
College Fund Versus Quartiles of Tuition and Total Costs of Attendance: Metric 1. When we turn to maximum college fund benefits, a very different picture emerges in terms of purchasing power. As depicted in Figure 3.6, among public AA-granting schools, CF benefits cover all in-state tuition and fees in all states. In fact, in most states, CF benefits greatly exceed in-state tuition and fees. (Refer to Appendix C for a breakdown of numbers of school by category in each state.) Among private AA-granting schools, CF benefits cover all tuition and fees for all schools in 18 of the 43 states in this sample (refer to Figure 3.7). In seven of the remaining 43 states, the benefits cover tuition and fees associated with schools in the third quartile. In 18 of those 43 states CF benefits cover tuition and fees associated with the second quartile. There are four states in which these benefits do not even meet the tuition and fees associated with schools in the first quartile. Thus, CF benefits are very generous for public AA-granting programs but far less so for private AA-granting programs.

CF benefits cover all tuition and fees in all public BA-granting schools in all of the 54 states (see Figure 3.8). As Figure 3.9 shows, CF benefits cover all (or nearly all) tuition and fees for all BA-granting private schools in only five states. For private BA-granting schools in most of the other states, CF benefits cover all tuition and fees of schools in the first quartile in 34 states and tuition and fees of schools in the second quartile in 19 states. In most states, the CF benefits cover less than half of tuition and fees of those colleges in the fourth quartile. As with private AA-granting programs, the MGIB benefits cover a small fraction of the costs associated with tuition and fees in most private BA-granting schools in most states while proving to be quite generous for most public BA-granting schools in most states.

Figures 3.10 and 3.11 depict total cost estimates for public and private BA-granting schools compared with CF benefits. As shown in Figure 3.10, CF benefits cover all total costs associated with BA-granting public schools in 33 of the 50 states. In the 17 remaining states, these benefits cover total costs associated with schools in the second quartile; in ten of those 17 states, the benefits cover total costs of schools in the third quartile.

Although CF benefits cover total costs of attendance for most public schools in most states, a very different story emerges when one looks
Figure 3.10—Total Costs: Public Four-Year Schools, AY 1997

Figure 3.11—Total Costs: Private Four-Year Schools, AY 1997
at private schools. As Figure 3.11 illustrates, the CF benefits cover all total costs in all schools in only two states (Arizona and Puerto Rico). Indeed, the CF benefits do not even cover total costs for schools in the first quartile in most states.

Thus, CF benefits are generous compared with tuition among public AA-granting and BA-granting programs. CF benefits are also generous compared with total costs among private BA-granting programs. However, among private schools, the CF benefits do not provide complete coverage for tuition costs in either AA or BA-granting programs in most states and provide even less coverage for total costs of attending private BA-granting schools.

**MGIB Versus Tuition and Fees and Total Costs of Attendance: Metric 2.** The second metric we used for comparing the CF and MGIB benefits with tuition and total costs of attendance is the ratio of CF or MGIB benefits to the enrollment-weighted state averages for tuition and total costs of attendance for AY 1997–1998. When we evaluated tuition and fees, we stratified schools by public and private and by HDG: AA or BA. When we examined total costs of attendance, we stratified schools by public and private only, because we calculated total costs for BA-granting schools only (see Appendix D for our reasoning).

Figure 3.12 depicts the estimated percentage of enrollment-weighted state averages of in-state tuition and fees covered by maximum MGIB funds among public AA-granting schools. As shown, MGIB benefits either equal or exceed average in-state tuition and fees at public AA-granting schools in 51 of 53 states. Figure 3.13, which depicts the estimated coverage rate of the MGIB benefits among private AA-granting schools, shows that MGIB benefits equal state-average tuition and fees in only six of the 43 states. In most states, MGIB benefits cover considerably less than 75 percent of the state average.

Figure 3.14 depicts estimated MGIB coverage rates for state-averaged tuition and fees among public BA-granting schools. MGIB benefits meet or exceed the state-averaged in-state tuition and fees in all but 12 of the 54 states. In most of the 12 remaining states, the MGIB covers more than 75 percent of the average costs associated with tuition and fees. Figure 3.15 shows the MGIB coverage rates for state
Figure 3.12—Percentage of Average In-State Tuition and Fees at Public
Two-Year Schools Covered by MGIB Benefits, AY 1997

Figure 3.13—Percentage of Average In-State Tuition and Fees at Private
Two-Year Schools Covered by MGIB Benefits, AY 1997
Figure 3.14—Percentage of Average In-State Tuition and Fees at Public Four-Year Schools Covered by MGIB Benefits, AY 1997

Figure 3.15—Percentage of Average In-State Tuition and Fees at Private Four-Year Schools Covered by MGIB Benefits, AY 1997
averages of tuition and fees among private BA-granting schools. MGIB benefits cover far below 50 percent of the state average in most states. Indeed, MGIB funds meet the state average for private BA-granting programs in only two states: Puerto Rico and Utah.

Figure 3.16 and 3.17 present MGIB coverage rates for enrollment-weighted state averages of total costs among public and private BA-granting schools respectively. Even among public schools, MGIB funds do not equal the state-averaged total costs of attendance in any state. Indeed, in most states, MGIB benefits cover far less than 75 percent of state-averaged tuition and fees. Of course, among private schools, MGIB covers even less. As shown in Figure 3.17, the MGIB covers 25 percent or less of the state-averaged total costs of attendance in the vast majority of states (37 of 51).

Thus the MGIB is very generous in covering public two-year and four-year programs but not very generous with respect to purchasing tuition at private schools. However, even though the MGIB goes far in covering tuition among public schools, it does not go far in covering the total costs of attendance associated with attendance at a public BA-granting institution. It does even less well in covering total costs at private BA-granting schools.

**College Fund Benefits Versus Tuition and Fees and Total Costs of Attendance: Metric 2.** Figures 3.18 and 3.19 depict CF coverage rates for state-averaged tuition and fees among public and private AA-granting schools, respectively. As shown in Figure 3.18, CF benefits at least equal state average tuition and fees in all 53 states. In most states, CF benefits exceed average tuition by at least a factor of 3. Figure 3.19 shows that CF benefits equal or exceed average tuition and fees in 34 of 43 states. In the remaining states, CF benefits cover 75 percent of tuition and fees.

Figures 3.20 and 3.21 depict estimated CF coverage rate for state-averaged tuition among public and private BA-granting schools, respectively. As illustrated by Figure 3.20, maximum CF benefits equal or exceed average tuition and fees in all states—and in the vast majority of states the benefits exceed average tuition by at least a factor of 2. As shown in Figure 3.21, CF benefits equal or exceed the average tuition and fees in 17 of the 51 states in the sample. In the other
Figure 3.16—Percentage of Average Total Costs at Public Four-Year Schools Covered by MGIB Benefits, AY 1997

Figure 3.17—Percentage of Average Total Costs at Private Four-Year Schools Covered by MGIB Benefits, FY 1997
Figure 3.18—Percentage of Average In-State Tuition and Fees at Public Two-Year Schools Covered by CF Benefits, AY 1997

Figure 3.19—Percentage of Average In-State Tuition and Fees at Private Two-Year Schools Covered by CF Benefits, AY 1997
34 states, CF benefits cover 50 percent or more of the state average tuition and fees faced by students in private BA-granting schools.

Figures 3.22 and 3.23 depict CF coverage rates of total costs of attendance among public and private BA-granting schools. The figures show that CF benefits fare very differently for public and private schools. Among public BA-granting schools (Figure 3.22), CF benefits nearly equal or exceed the enrollment-weighted average total costs of attendance in all but one of the 50 states represented in the sample. Moreover, these funds cover over 80 percent of the average total costs in that state. However, as depicted in Figure 3.23, CF benefits do not approach full coverage of total costs of attendance in most states. CF benefits cover estimated total costs of attending private BA-granting schools in only two states (Puerto Rico and Arizona). In the majority of the 25 states, CF benefits covered between 50 percent and 75 percent of total costs. In 18 of the states, those benefits covered less than 50 percent of the total costs and in six states they covered between 75 percent and 90 percent of the total costs.
Figure 3.21—Percentage of Average In-State Tuition and Fees at Private Four-Year Schools Covered by CF Benefits, AY 1997

Figure 3.22—Percentage of Average Total Costs at Public Four-Year Schools Covered by CF Benefits, AY 1997
Thus the CF goes quite far in meeting tuition and fees among public BA-granting and AA-granting schools and even in meeting total costs of attending public BA-granting schools. The CF does well with respect to private AA-granting schools but far less so with respect to private BA-granting schools. The CF fares even less well relative to total costs among private BA-granting schools.

Overall, the MGIB fares well in covering public tuition and fees but fares poorly in covering total costs of attendance, particularly among private BA-granting schools. The CF provides a dramatic increase in the ability to pay for college relative to the MGIB: In fact, the CF permits the purchasing of total costs of attendance at most public schools. However, even the CF does not cover 100 percent of expenses (either tuition or total costs of attendance) at private BA-granting schools.
CONCLUSIONS AND AREAS FOR FUTURE STUDY

Youth Have Different Options at Different Stages of Their Lives

Attracting high-quality youth into active duty enlistment involves challenges that vary with the youth’s stage of life: whether they are still in high school and contemplating college, military service, or the labor market; whether they are in college and hoping to augment their financing options; or whether they have already completed or abandoned their planned program of undergraduate study.

A high-quality youth debating military participation or postsecondary education enrollment has numerous options. Civilian financial aid programs offer a variety of programs, each having its own qualifications. The active-duty and Reserve and Guard components also offer several ways to finance postsecondary education concomitant with fulfilling various commitments and requirements. Although military programs often offer maximum awards that are considerably larger than those of any single civilian program, these awards are based on fulfilling military service obligations. However, given the shift in financial aid from grant-based programs to loans, youth may decide that these military terms of service represent an attractive option compared with the accumulation of a large loan burden. Indeed, both the MGIB and CF are very lucrative particularly with respect to attending two-year public institutions. As Chapter Two of this volume suggests, this may be a market where the military has significant possibilities for recruitment.

At this point in the youth’s decisionmaking process, active-duty participation is only one of several military service options. The Selected Reserves and National Guard offer attractive benefits that may not require the same commitments as full-time enlistment. These programs generally make public schools accessible and provide a part-time salary. Importantly, these programs permit youth to pursue their education while serving. Voicing the concern that the Guards pose significant challenges to the Active Army, the previously cited West Point study (1997, p. 19) argues that “The National Guard . . . gets the recruit who is college capable, while the active Army gets the recruit who is not college bound.” Surely, full-time enlistment has advantages over the Reserve and Guards programs that we do not
explore here. Whether the packages available through Guards and Reserves programs are in fact better than those available through enlistment remains an empirical question.

To ensure that active-duty enlistment benefits are attractive options for this target population, we must track their purchasing power with respect to college costs of attendance. Reflecting upon our metrics for assessing the purchasing power of the MGIB and CF relative to tuition and fees and to total costs of attendance, we can draw several conclusions:

- The MGIB tends to cover tuition and fees at most public schools but is not very effective in covering private school tuition and fees.
- The MGIB does not go far in paying for total costs of attendance at public institutions and is much less helpful at private institutions.
- The maximum CF award is extremely generous with respect to public school tuition and fees and generally covers total costs of attendance as well.
- The maximum CF award also goes a long way in purchasing private-school tuition and fees but falls short of providing for private-school total costs of attendance.

**Bundling Aid and the Impact of Veteran Benefits and Status**

As suggested throughout this analysis, while comparing civilian and military program maximums is useful, we must try to understand how these programs interact and affect the final bundle of aid received by the veteran. Specifically, we need to know whether veterans’ benefits are simply displacing other types of grant aid, particularly aid from institutional sources. This question is important: If one can obtain grant aid equivalent to the MGIB for college, then the lure of the MGIB as an enlistment incentive is diminished. However, it may be that veterans’ benefits displace loan aid, not grant aid. Thus, we need to determine whether veterans have less debt than their nonveteran counterparts. It may be worthwhile, among other steps, to monitor the impact of the HEAR legislation on veteran debt.
Taking our cue from the work of Klein et al., we need to consider the possibility that military benefits may be a means by which various other sources of institutional funding can be released to support other students. Thus, military programs may cross-subsidize other students’ costs of attendance. In a world where need-blind admissions policies are becoming less affordable, students with military educational benefits may be preferable to those without such resources. Institutions may have an incentive to admit veterans because they arrive with these educational benefits. Efforts to exclude veterans’ educational benefits from consideration of other sources of financial aid should give us pause—especially if the present financial aid structure provides for an incentive to prefer veterans over nonveterans without such benefits.

**Incentives Generated by Military Educational Benefits**

Given what we understand about the mechanisms of financial aid, the incentive structure of military educational programs deserves attention. We have seen that among public schools these programs can be lucrative—especially the most current maximum college fund benefits offered through the Navy and Army. Consequently, a student may be motivated to attend the least-expensive school and pocket some of the excess funds. Moreover, while both the CF and MGIB pose incentives for high-quality youth to enlist, they also provide incentives for recruits to separate upon completion of their term because maximum benefits may be obtained only upon separation. Loan repayment programs may tend to attract individuals who did not obtain degrees and have large loan amounts rather than college graduates, who may prefer to join the officer ranks with higher pay rather than to enlist for the college loan repayment benefit.

Knowing whether grants or loans obtained in addition to veterans’ education benefits are an incentive to choose higher-quality institutions may inform the ongoing debate surrounding the purchasing power of these benefits. If additional aid from civilian sources can provide this incentive, we require a better understanding of the impact of veteran status on need determination and of the impact of veterans’ educational benefits on the overall aid package. For example, is there a substantive difference in the fraction of veterans qualifying for the Pell relative to nonveterans? Is there a difference in the
size of the award—and if so, why? Similar questions pertain to other federal financial aid grant and loan programs. This type of data may inform future modifications of military educational programs.

Another area for reflection centers on the expansion of the MGIB program in the past year and current congressional proposals for further expansion. One concern is whether expanding the MGIB would compromise the power of the CF to man hard-to-fill occupations. As the MGIB becomes more lucrative, it may affect recruiters’ ability to draw marginal candidates into selective MOS with the CF benefit. Although FY 1999 MGIB awards are only half the maximum awards for the CF, it may be worthwhile to examine their impact—if any—on marginal CF enrollment.

REFERENCES


162 Recruiting Youth in the College Market


