U.S. Department of Education

Upward Bound and Upward Bound Math-Science Program Outcomes for Participants Expected to Graduate High School in 2004–05, With Supporting Data From 2005–06
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March 2008

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INTRODUCTION

This report profiles participant outcomes of the classic Upward Bound (UB) and Upward Bound Math-Science (UBMS) programs. The UB and UBMS programs provide academic and other support services for high school participants preparing to enter college. Upward Bound’s goal is to increase the rate at which program participants complete high school and enroll in and complete programs of postsecondary education. UBMS has an additional goal, to help students recognize and develop their potential to excel in the fields of math and science and pursue postsecondary degrees in these fields. The UB and UBMS programs serve high school students from low-income families and from families in which neither parent holds a bachelor’s degree—that is, potentially first-generation college students. Annually, UB projects each serve between 50 and 150 participants; UBMS projects each serve between 50 and 75 participants.

This report brings together demographic data and information on program outcomes for the UB and UBMS programs and for the first time presents data on postsecondary enrollment rates for UB and UBMS participants who were expected to graduate high school during the 2004–05 academic year. Moreover, with data now available for the 2000–01, 2001–02, 2002–03, 2003–04, 2004–05, and 2005–06 project years, this report includes information on the academic progress of a complete cohort—one that includes a full range of participants, from those who entered the program as ninth-graders or rising ninth-graders to those who joined UB or UBMS later in high school. It should also be noted that the availability of data from the 2005–06 annual performance reports (APRs) makes information on the 2004–05 cohort more complete and reliable.

The most significant outcome for these programs is postsecondary enrollment of participants. Among those who were expected to graduate high school in 2004–05, 77.3 percent of UB participants and 86.1 percent of UBMS participants enrolled in a postsecondary education program (see figure 3). Given the differences between the two programs, namely that UBMS participants tend to be recruited later in their high school experience, tend to be academically stronger, and have a more focused area of study (i.e., math and/or science) than their counterparts in UB, it is not surprising that their rate of postsecondary enrollment is higher.

One consistent predictor of postsecondary enrollment is duration in the Upward Bound program; those who participate in the program longer are much more likely to continue on to postsecondary education than those who participate for a shorter length of time. For example, among UB participants expected to graduate high school during 2004–05, 55.3 percent of those who participated in the program for less than one year went on to college compared with 91.2 percent of those who participated for three years or more (see figure 4). And while, overall,

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1 There are three types of Upward Bound program projects: regular, or classic, projects that prepare high school students for programs of postsecondary education; math-science projects that prepare high school students for postsecondary programs that lead to careers in the fields of math and science; and veterans projects that assist military veterans preparing for entry into postsecondary education programs. The acronym UB refers to classic Upward Bound; UBMS refers to Upward Bound Math-Science; and VUB refers to Veterans Upward Bound.

2 Postsecondary enrollment information is derived from two sources, the Annual Performance Report (APR) submitted by each project and a match to the federal financial aid database. The numbers reported here reflect postsecondary enrollment through the 2005–06 academic year reported in the APR and federal financial aid data.
female participants were more likely to enroll in postsecondary education, the gender gap diminished the longer participants stayed in the program (see figure 5).

A second predictor of postsecondary enrollment is persistence in the program through high school graduation. Among UB participants expected to graduate high school during 2004–05, 59.6 percent of those who left the program prior to their expected high school graduation date enrolled in college compared with 93.0 percent of those who participated through their expected high school graduation date (see figure 6). There are several explanations for this gap: 1) those who left Upward Bound prior to high school graduation included those who dropped out of high school and were less likely to meet the entrance requirements for a postsecondary program, 2) those who left may have moved out of the area making it more difficult for the project to track them, and 3) participants may have left Upward Bound because they were no longer interested in continuing their education beyond high school.

The 2003–04 academic year marked the beginning of a new grant cycle for most UB and UBMS projects. Table 1 identifies the number of UB and UBMS projects, target schools, and participants for 2004–05 and 2005–06.

<table>
<thead>
<tr>
<th>Table 1. Number of Upward Bound and Upward Bound Math-Science projects, target schools, and participants, by type of program: 2004–05 and 2005–06</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Projects</strong></td>
</tr>
<tr>
<td>Grant amount (millions)</td>
</tr>
<tr>
<td>Projects returning performance reports</td>
</tr>
<tr>
<td>Percent returning performance reports</td>
</tr>
<tr>
<td><strong>Target schools</strong></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Average target schools per project</td>
</tr>
<tr>
<td><strong>Participants</strong></td>
</tr>
<tr>
<td>Total participants, including prior-year participants</td>
</tr>
<tr>
<td>Total participants served during the year</td>
</tr>
<tr>
<td>Average number of participants served per project during the year</td>
</tr>
<tr>
<td>Average cost per participant served</td>
</tr>
</tbody>
</table>


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. The Upward Bound programs began a new, four-year funding cycle in 2003–04. Funding in 2004-05 included a one-time supplement for 44 UB grantees to adjust their project start date.

a The number of target schools is based on current participants in 2004–05 or 2005–06 as specified.

b The count of current and prior-year participants is based on APR data. Further, the count of participants eliminates duplications among records of UB and UBMS participants with valid Social Security numbers within projects. Overall, duplicate records for 110 UB/UBMS participants were removed from the 2004–05 file, and 986 were removed from the 2005–06 file. These counts may differ slightly from the count reported in earlier profiles of the Upward Bound programs.

3 The findings reported are based on longitudinal data collected over a six-year period that spans two grant cycles. One funding cycle included academic years 1999–2000 through 2002–03, while the other began in 2003–04. This report focuses on data from 2004–05 and 2005–06, years in the more recent funding cycle. A significant number of projects were funded for five years rather than the typical four.
There were 763 UB projects funded during 2004–05 and 761 UB projects funded during 2005–06. For UBMS, 127 projects were funded during both 2004–05 and 2005–06. A total of 99.9 percent of UB and 97.6 percent of UBMS projects submitted a 2005–06 Annual Performance Report (APR). UB and UBMS projects reported serving a higher number of participants during 2005–06 than during 2004–05. Specifically, 62,581 students received UB services during 2004–05, while 63,593 UB students were served during 2005–06. For UBMS, 7,959 students were served during 2004–05 and 8,188 students were served during the 2005–06 program year.4

Figure 1 provides information regarding the number of participants grantees were funded to serve and the number of participants actually served. The figure also provides an estimated yearly full-time equivalent (YFTE) count for UB.

Not all students participate in both the academic year and the summer or summer bridge components. Furthermore, projects frequently recruit additional students to replace those who participated in only one component, relocated or otherwise dropped out of Upward Bound. Thus, the count of participating individuals may overstate the number of persons who receive the full complement of services. For example, a project may have reported the participation of two students, one who attended the program only during the academic year and one who participated only in the summer. Neither of these students alone represents a complete “funded to serve” participant.

To take into account students’ participation in UB for various portions of the reporting year, a YFTE count of participants was calculated by assigning different weights to participants according to their participation level: those who participated in both academic year and either summer or summer bridge offerings were weighted at 100 percent; those who attended during the academic year only were weighted at 55 percent; and those who participated only in the summer or summer bridge were weighted at 45 percent. The 55 to 45 split reflects the average proportional allocation of project funds for the academic and summer components for a typical classic Upward Bound project. The YFTE estimate is intended to approximate the number of participants actively served at any given time in the reporting year.

Likewise, for UBMS projects the number actually served may be overstated in two respects. Again, not all students attend on a full-time basis in both summer and academic-year components and additional students are often recruited to replace those who drop out or participate in a single component. The second and more important issue is students’ participation in the summer component, which is the primary emphasis of UBMS. The second bar chart within figure 1 compares the number of students who participated in the summer component to the number of students funded to serve.

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4 Project and participant counts are based on APR data.
Figure 1. Number served in Upward Bound and Upward Bound Math-Science during the 2005–06 reporting year, number funded to serve, estimated yearly full-time equivalent for Upward Bound and summer participation in Upward Bound Math-Science, by type of project


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science.

a Some projects are able to achieve cost efficiencies and thus serve more students. Also, projects frequently recruit additional students to take the place of those who participated in only one component, relocated or otherwise left Upward Bound. Thus, the number actually served is larger than the number funded to serve.

b Estimated yearly full-time equivalent (YFTE) was calculated by totaling participants who were in both summer and academic year programs at 100 percent; academic year only at 55 percent; and summer or summer bridge only at 45 percent. This number is intended to give an estimate of the number being actively served at any given time in the reporting year.

c This number includes those served in the summer only, summer and academic year, summer bridge only and summer bridge and academic year; and excludes those served only in the academic year.
The tables and figures that follow illustrate three outcomes of interest: program retention (persistence), postsecondary enrollment rates, and postsecondary attendance patterns. Although postsecondary completion is another important program outcome, data are not yet available to determine the postsecondary completion rates of a cohort of UB and UBMS participants (e.g., the six-year bachelor's degree completion rate for the UB and UBMS participants with an expected high school graduation date of 2005 will not be available until 2011).

Outcome measures are presented overall and separately by select participant, target school and grantee characteristics. The relationship between these select characteristics and outcomes are further differentiated by persistence in the program and length of program participation.

Most of the data are presented by cohorts of UB and UBMS participants based on the participants’ expected high school graduation year. The expected high school graduation year was originally determined from the date and grade level of the participant at program entry, assumed a normal grade progression, and was established at first participation in the program. For example, a student entering UB or UBMS during 2002–03 as a 10th-grader would be in the 11th grade during 2003–04 and would be a senior during 2004–05. Therefore, the expected high school graduation year would be 2004–05. Participants may enter UB or UBMS at any time between the summer prior to ninth grade and the summer prior to 12th grade. Likewise, participants are able to leave the program at any time.

1. Program Retention

This section examines program persistence through expected high school graduation, by grade level at program entry and length of participation (in months) for UB and UBMS participants who were expected to complete high school during 2004–05. UB participants generally enter the program earlier in high school than UBMS participants. For instance, approximately 50 percent of UB participants entered the program prior to reaching the 10th grade, compared to around 35 percent of UBMS participants. Consequently, UBMS participants, on average, participate for a shorter duration than UB participants.

Table 2 provides information on the percentage of participants, by grade level at program entry, who stayed in the program until their expected high school graduation date. Overall, 59.1 percent of UB participants and 55.3 percent of UBMS participants persisted in the program until their expected high school graduation date. Concerning grade level at program entry, the rate of program persistence until high school completion was found to be the highest for UB participants who entered the program as rising seniors and lowest for participants who entered before or during the ninth grade. Approximately 89 percent of UB and 64 percent of UBMS participants who entered as rising seniors stayed in the program through their expected high school graduation date.

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5 This derivation of expected high school graduation cohort from date and grade level at entry into a UB or UBMS project has been supplemented with additional APR variables (expected high school graduation date, starting and ending grade levels, and high school graduation date) to minimize the amount of missing data and to assign participants into cohorts as accurately as possible.
graduation date. In comparison, just over 50 percent of UB (52.0 percent) and UBMS (52.9 percent) students who entered before or during the ninth grade received services through their expected high school graduation date.

<table>
<thead>
<tr>
<th>Grade level at program entry</th>
<th>UB</th>
<th>UBMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Left UB before</td>
<td>Left UBMS before</td>
</tr>
<tr>
<td></td>
<td>expected high school graduation date</td>
<td>expected high school graduation date</td>
</tr>
<tr>
<td>All ninth grade</td>
<td>48.0</td>
<td>52.0</td>
</tr>
<tr>
<td>Rising ninth grade</td>
<td>47.5</td>
<td>52.5</td>
</tr>
<tr>
<td>Ninth-grade</td>
<td>48.2</td>
<td>51.8</td>
</tr>
<tr>
<td>10th grade</td>
<td>37.0</td>
<td>63.0</td>
</tr>
<tr>
<td>11th grade</td>
<td>28.0</td>
<td>72.0</td>
</tr>
<tr>
<td>Rising 12th grade</td>
<td>11.0</td>
<td>89.0</td>
</tr>
<tr>
<td>All participants</td>
<td>40.9</td>
<td>59.1</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Education, Federal TRIO Programs, Upward Bound Annual Performance Reports (APRs), 2000–01 through 2005–06. Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. The analysis is based on the 20,740 UB and 2,936 UBMS participants who were expected to graduate high school during 2004–05. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). Due to missing data, 2,508 UB participants and 296 UBMS participants were excluded from the analysis.

Length of participation is presented in figure 2 for UB and UBMS participants. UB participants were most likely to participate for three years or longer (27.4 percent) and least likely to participate for less than 12 months (20.0 percent). The opposite was found for UBMS participants. A total of 36.3 percent of UBMS participants received services for less than 12 months, while only 16.4 percent stayed in the program for 36 months or longer.
Figure 2. Length of participation of UB and UBMS participants expected to graduate from high school during 2004–05

Source: U.S. Department of Education, Federal TRIO Programs, Upward Bound Annual Performance Reports (APRs), 2000–01 through 2005–06. Note: UB = classic Upward Bound. UBMS = Upward Bound Math-Science. The analysis is based on the 20,740 UB and 2,936 UBMS participants who were expected to graduate high school during 2004–05. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). A total of 524 UB participants and 75 UBMS participants were excluded from the analysis due to missing information on length of participation.

The length of participation was calculated as the difference between project entry date and date of last program service. For new and continuing participants, the date of last program service was listed as the end of the reporting period. Out-of-range end dates were set to the end of the reporting period for the participant’s project for the last year the participant had evidence of active participation.

2. Postsecondary Enrollment Rates

Postsecondary enrollment rates for the 20,740 UB and 2,936 UBMS participants who had a 2004–05 expected high school completion date are examined overall and by length of participation, program persistence, grade level at program entry, and gender. Participants were considered to be enrolled in postsecondary education if the available APR data provided by UB and UBMS projects or data from federal financial aid records provided some evidence of postsecondary enrollment, such as a valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date. The APR and financial aid data include information through the 2005–06 program year. Therefore, participants who were expected to graduate high school during 2004–05 most likely enrolled in college sometime between the fall of 2005 and the spring of 2006. Evidence of postsecondary enrollment was found for 77.3 percent of UB participants and 86.1 percent of UBMS participants (figure 3).
Figure 3. Postsecondary enrollment rates of UB and UBMS participants expected to graduate from high school during 2004–05


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. The analysis is based on 20,740 UB and 2,936 UBMS participants who were expected to graduate high school during 2004–05. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and federal financial aid data. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants’ postsecondary enrollments until a year or more after the students’ high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006.

Figure 4 displays postsecondary enrollment rates by the number of months UB and UBMS participants received Upward Bound services. For both UB and UBMS participants, college enrollment rates increased as length of participation in the program increased. Only 55.3 percent of UB participants who received UB services for less than a year showed evidence of postsecondary enrollment, compared to 91.2 percent of students who participated for three years or longer. Similarly, the college enrollment rate for UBMS participants who stayed in the program for 11 months or less was 80.0 percent, while the college enrollment rate was over 87 percent for participants who were served for one year or longer.
Figure 4. Postsecondary enrollment rates of UB and UBMS participants expected to graduate high school during 2004–05, by length of participation

<table>
<thead>
<tr>
<th>Number of months in the program</th>
<th>UB</th>
<th>UBMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–11</td>
<td>55.3</td>
<td></td>
</tr>
<tr>
<td>12–23</td>
<td>72.7</td>
<td></td>
</tr>
<tr>
<td>24–35</td>
<td>85.1</td>
<td></td>
</tr>
<tr>
<td>≥ 36</td>
<td>91.2</td>
<td></td>
</tr>
<tr>
<td>1–11</td>
<td>80.0</td>
<td></td>
</tr>
<tr>
<td>12–23</td>
<td>87.6</td>
<td></td>
</tr>
<tr>
<td>24–35</td>
<td>90.0</td>
<td></td>
</tr>
<tr>
<td>≥ 36</td>
<td>94.3</td>
<td></td>
</tr>
</tbody>
</table>


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. The analysis is based on 20,740 UB and 2,936 UBMS participants who were expected to graduate high school during 2004–05. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants’ postsecondary enrollments until a year or more after the students’ high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006. A total of 524 UB and 75 UBMS participants were excluded from the analysis due to missing information on length of participation.

Figure 5 presents the postsecondary enrollment rates for the 2004–05 expected high school graduation cohort, by length of program participation and gender. Regarding gender, although both UB and UBMS females displayed higher postsecondary enrollment rates than their male counterparts, the gender gap was narrower for UBMS participants than UB participants. Approximately 79.1 percent of female UB participants had evidence of postsecondary enrollment, while the postsecondary enrollment rate for UB male participants was 73.9 percent (a difference of 5.2 percentage points). For UBMS, 87.9 percent of females were enrolled in college, compared to 83.3 percent of males (a difference of 4.6 percentage points). For both males and females, postsecondary enrollment rates increased as the number of months in the program increased. Further, the gender gap was smaller in the longer program duration categories than in the shorter duration categories. This was the case for UB and UBMS participants.

Postsecondary enrollment rates by program persistence are presented for UB and UBMS participants expected to graduate from high school in 2004–05, in figure 6. A total of 93.0 percent of UB participants who stayed in the program until their expected high school completion date were enrolled in college, compared to only 59.6 percent of UB participants who left the UB program prior to their expected high school graduation date. Similarly, the postsecondary enrollment rate was found to be higher for UBMS participants who received services until their expected high school graduation date (94.9 percent) than for those who left the program before their expected high school graduation date (80.9 percent).
Figure 5. Postsecondary enrollment rates of UB and UBMS participants expected to graduate from high school during 2004–05, by length of participation and gender


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. The analysis is based on 20,740 UB and 2,936 UBMS participants who were expected to graduate high school during 2004–05. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants’ postsecondary enrollments until a year or more after the students’ high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006. A total of 524 UB and 75 UBMS participants were excluded from the analysis due to missing information on length of participation. UB and UBMS each had one participant that was excluded from the analysis due to missing gender information.

a The length of participation was calculated as the difference between project entry date and date of last program service. For new and continuing participants, the date of last program service was listed as the end of the reporting period. Out-of-range end dates were set to the end of the reporting period for the participant’s project for the last year the participant had evidence of active participation.
Figure 6. Postsecondary enrollment rates of UB and UBMS participants expected to graduate from high school during 2004–05, by program persistence

![Graph showing postsecondary enrollment rates for UB and UBMS participants.]


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. The analysis is based on 20,740 UB and 2,936 UBMS participants who were expected to graduate high school during 2004–05. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants’ postsecondary enrollments until a year or more after the students’ high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as spring of 2006. A total of 2,443 UB and 294 UBMS participants were excluded from the analysis due to missing information on program persistence.

Postsecondary enrollment rates for UB and UBMS participants expected to graduate high school in 2004–05, by grade level at program entry and program persistence through expected high school graduation date are presented in figure 7. When considering all students who participated in UB and UBMS, including those who left the program before high school graduation, postsecondary enrollment rates were lowest for UB and UBMS students who entered the program before or during the ninth grade (74.4 percent and 82.1 percent, respectively). However, as table 2 shows, only about one-half of ninth-graders persisted in UB through graduation, and thus postsecondary enrollment rates are influenced by a large number of program dropouts. College enrollment rates were over 79 percent for UB participants and over 87 percent for UBMS participants who entered the program after the ninth grade, numbers that coincide with greater persistence rates. However, when examining postsecondary enrollment rates by grade level at program entry for UB participants who persisted in the program until their expected high school graduation date, the postsecondary enrollment rates were highest for participants who entered before or during the ninth grade (93.5 percent) and declined as the length of program participation declined to 85.8 percent for participants who entered the program as rising seniors. For UBMS, the postsecondary enrollment rate for participants who remained in the program until their expected high school completion date remained fairly constant considering different grade levels at program entry.
Figure 7. Postsecondary enrollment rates of UB and UBMS participants who were expected to graduate from high school during 2004–05, by program persistence and grade level at program entry


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. The analysis is based on 20,740 UB and 2,936 UBMS participants who were expected to graduate high school during 2004–05. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants’ postsecondary enrollments until a year or more after the students’ high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006. A total of 81 UB and six UBMS participants were excluded from the analysis due to missing information on grade level at entry.

*a Includes all UB and UBMS participants who had a last service date between April 1 and August 31 of the year they were expected to complete high school (2004–05).
3. Postsecondary Attendance Patterns

Postsecondary attendance patterns are identified by select participant, target school, and grantee characteristics for participants expected to graduate from high school during the 2004–05 academic year. Figure 8 shows that UB participants were more likely to attend a postsecondary program at their grantee institution than UBMS participants. Specifically, 31.6 percent of UB participants and 19.9 percent of UBMS participants enrolled in postsecondary education at their grantee institution.

Figure 8. Percentage of UB and UBMS participants expected to graduate from high school during 2004–05 attending a postsecondary program at the grantee institution


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. Analysis includes 15,176 UB and 2,447 UBMS participants who were expected to graduate high school during 2004–05, who had evidence of postsecondary enrollment, and who received services from a four-year or two-year grantee institution. UB participants (n = 850) and UBMS participants (n = 81) who received services from community organizations were excluded. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants’ postsecondary enrollments until a year or more after the students’ high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006. The analysis excludes 1,932 UB and 208 UBMS participants who were missing an Office of Postsecondary Education Identification (OPE ID) number for their grantee institution or the postsecondary institution attended.

Figures 9 through 12 illustrate the percentage of UB and UBMS participants who attended a postsecondary institution within their grantee’s sector or attended the grantee institution. UB participants who received services from public four-year grantee institutions showed slightly lower postsecondary enrollment rates (75.4 percent) than participants receiving services from community organization (79.8 percent), private four-year (79.0 percent), and two-year (78.4 percent) grantee institutions. In comparison, postsecondary enrollment rates were slightly higher for UBMS participants who received services from four-year public grantee institutions (87.1 percent) than participants who received services from two-year (86.9 percent) and four-year private (85.9 percent) grantee institutions. The postsecondary enrollment rate for UBMS participants who received services from community organization grantees was 69.8 percent.

Comparing the sector of the grantee institution to the sector of the college attended, UB participants who received services from private four-year grantee institutions were less likely to attend a college that was in the same sector as the grantee institution (22.5 percent) than
participants who received services from public four-year grantee institutions (56.2 percent) or two-year grantee institutions (47.0 percent) (figure 10). A similar pattern was found for UBMS participants (figure 11).

As shown in figure 12, UB participants who received services from two-year grantee institutions were most likely to stay at the same school for postsecondary education (45.2 percent) compared to those who received services from public four-year grantee institutions (33.3 percent) and private four-year grantee institutions (10.7 percent). While UBMS participants were less likely to attend the same institution for postsecondary enrollment than their UB counterparts, the pattern was similar. These patterns of postsecondary enrollment may be influenced by the relative cost of attending two-year versus four-year and public versus private postsecondary institutions.

Figure 9. Postsecondary enrollment rates of UB and UBMS participants expected to graduate high school during 2004–05, by project sector


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. The analysis is based on 20,740 UB and 2,936 UBMS participants who were expected to graduate high school during 2004–05. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants' postsecondary enrollments until a year or more after the students' high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006.
Figure 10. Percentage distribution of the types of postsecondary institutions first attended by UB participants expected to graduate from high school during 2004–05 and attending a postsecondary program, by type of grantee institution

All four-year grantees

- Less than two-year: 2.5%
- Two-year: 19.9%
- Private four-year: 14.7%
- Public four-year: 50.1%
- Unknown institution type: 12.8%

Public four-year grantees

- Less than two-year: 2.3%
- Two-year: 19.6%
- Private four-year: 10.4%
- Public four-year: 56.2%
- Unknown institution type: 11.5%

Private four-year grantees

- Less than two-year: 2.8%
- Two-year: 20.4%
- Private four-year: 22.5%
- Public four-year: 38.9%
- Unknown institution type: 15.3%

Two-year grantees

- Less than two-year: 2.1%
- Two-year: 47.0%
- Private four-year: 8.5%
- Public four-year: 29.5%
- Unknown institution type: 12.9%

Community organization grantees

- Less than two-year: 2.1%
- Two-year: 27.1%
- Private four-year: 11.3%
- Public four-year: 42.6%
- Unknown institution type: 16.9%


Note: UB = classic Upward Bound. The analysis is based on 16,026 UB participants who were expected to graduate high school during 2004–05 and who had evidence of postsecondary enrollment. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants’ postsecondary enrollments until a year or more after the students’ high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006.
Figure 11. Percentage distribution of the types of postsecondary institutions first attended by UBMS participants expected to graduate from high school during 2004–05 and attending a postsecondary program, by type of grantee institution

All four-year grantees

- Total participants: 2,528
- Unknown institution type: 8.6%
- Private four-year: 17.1%
- Two-year: 18.3%
- Less than two-year: 2.0%
- Public four-year: 54.1%

Public four-year grantees

- Total participants: 2,000
- Unknown institution type: 7.0%
- Private four-year: 13.9%
- Two-year: 19.8%
- Less than two-year: 2.0%
- Public four-year: 57.3%

Private four-year grantees

- Total participants: 528
- Unknown institution type: 12.4%
- Private four-year: 24.8%
- Two-year: 14.7%
- Less than two-year: 1.8%
- Public four-year: 46.4%

Two-year grantees

- Total participants: 750
- Unknown institution type: 8.0%
- Private four-year: 10.5%
- Two-year: 41.0%
- Less than two-year: 1.7%
- Public four-year: 38.7%

Community organization grantees

- Total participants: 250
- Unknown institution type: 32.1%
- Private four-year: 16.0%
- Two-year: 18.5%
- Less than two-year: 2.5%
- Public four-year: 30.9%


Note: UBMS = Upward Bound Math-Science. The analysis is based on 2,528 UBMS participants who were expected to graduate high school during 2004–05 and who had evidence of postsecondary enrollment. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants' postsecondary enrollments until a year or more after the students' high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006.
Figure 12. Percentage of UB and UBMS participants expected to graduate from high school during 2004–05 and attending a postsecondary program at the grantee institution, by sector of grantee institution


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. Postsecondary enrollment rates are based on 15,176 UB and 2,447 UBMS participants who were expected to graduate high school during 2004–05, who had evidence of postsecondary enrollment, and who received services from a four-year or two-year grantee institution. UB participants (n=850) and UBMS participants (n=81) who received services from community organizations were excluded. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants’ postsecondary enrollments until a year or more after the students’ high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006. There were 1,932 UB and 208 UBMS participants who were missing sector information on the postsecondary institution attended. These participants were excluded from the analysis.

Figure 13 displays the rate of postsecondary enrollment within the grantee’s sector or at the grantee institution, by urbanicity of the target school attended. UB participants from target schools located in towns or rural areas were most likely to enroll in a college that was in the same sector as their grantee institution (58.5 and 57.6 percent, respectively). Less than half of UB participants from target schools located in cities attended college within the same sector as their grantee institution (46.7 percent). For UBMS, 52.8 percent of participants from town target schools and 52.3 percent from rural target schools enrolled in a college within the same sector as their grantee institution, while 50.3 percent of UBMS participants from suburban target schools and 50.1 percent from city target schools attended a postsecondary institution within the same sector as their grantee institution. UB and UBMS participants from target schools located in towns or rural locations were most likely to attend their grantee institution, while UB participants from target schools located in cities and UBMS participants from suburban target schools were least inclined to attend their grantee institution.
Figure 13. Percentage of UB and UBMS participants expected to graduate from high school during 2004–05 attending the grantee institution, by urbanicity of target school


Note: UB = classic Upward Bound; UBMS = Upward Bound Math-Science. Postsecondary enrollment rates presented overall are based on 20,740 UB and 2,936 UBMS participants who were expected to graduate high school during 2004–05. The analysis of the percentage of participants attending a postsecondary institution within grantee’s sector or at the grantee institution is based on 15,176 UB and 2,447 UBMS participants who were expected to graduate high school during 2004–05, who had evidence of postsecondary enrollment, and who received services from a four-year or two-year grantee institution. UB participants (n=850) and UBMS participants (n=81) who received services from community organizations were excluded. Expected high school graduation year was derived from the APR variables that either by themselves or in conjunction with other variables indicate expected high school graduation date (expected high school graduation date, date of first entry into project, grade level at project entry, starting and ending grade levels, and high school graduation date). The data sources for determining postsecondary enrollment status include the APR and the federal financial aid files. A participant was considered enrolled if there was any evidence of postsecondary enrollment in any year from APR data (valid postsecondary grade level, institution code, financial aid award, postsecondary enrollment status, transcript, degree completion, academic standing, and first enrollment date) or if financial aid was received, according to federal financial aid data. UB and UBMS projects do not necessarily become aware of prior-year participants’ postsecondary enrollments until a year or more after the students’ high school graduation; moreover, relevant postsecondary financial aid data are not available for analysis until approximately two years after high school graduation. Postsecondary enrollment rates thus tend to increase over several years. Participants reflected in the figure who were expected to graduate from high school during 2004–05 did not necessarily enroll in fall 2005; they may have enrolled earlier in the year or, given that 2005–06 APRs provided updated enrollment information, as late as fall of 2006. The analysis of postsecondary enrollment rates excludes 2,202 UB and 353 UBMS students who were missing information on the urbanicity of target school attended. For the analysis of the percentage of participants attending a postsecondary institution within grantee’s sector or at the grantee institution, there were 1,932 UB and 208 UBMS participants who were missing information on the urbanicity of target school attended. These participants are excluded from the analysis.

* "City" includes schools located within an urbanized area and inside a principal city. "Suburb" includes schools located within an urbanized area and outside a principal city. "Town" includes schools located within an urban cluster but outside an urbanized area. "Rural" includes schools located outside urban clusters and outside urban areas.
APPENDIX:
DATA SOURCES

Data Sources

The data for this report were derived primarily from the 2000–01 through 2005–06 Upward Bound Annual Performance Reports (APRs). These reports include individual participant records that capture data on participant selection, entering characteristics, and type of services received. APRs also include measures of program participants’ academic progress.

Projects were required to report data on all eligible participants—those who participated for at least 60 days during the academic year or at least 10 days during a summer program—in the year the student was served. Additionally, projects were required to update information on participants served in prior years who are being tracked, including students who served for at least one calendar year in classic Upward Bound (UB); students who completed at least one summer program in Upward Bound Math-Science (UBMS); and students who participated for at least three months in Veterans Upward Bound (VUB). The students are tracked through their college graduation or for four years after leaving their Upward Bound project, whichever comes first. UB and UBMS prior participants who were served for shorter periods than those cited immediately above, but still were served 60 days during the academic year or 10 days during the summer, were to be tracked for four years after the date of last service. The Department did not require a project to continue to attempt to follow up on prior-year participants whom the project could not locate in the previous year’s follow-up. For the 2000–01 data collection, which was the first using the new reporting requirements, Upward Bound projects were asked to include all individuals who were served in either or both of the 1999–2000 and 2000–01 program years. For each subsequent year, Upward Bound projects added individuals served in the program year of the data collection and updated information on students served in previous years.

Using the individual participant records of all students served between 1999–2000 and 2005–06 and reported on in any of the 2000–01 through 2005–06 APRs, a longitudinal data set was created to assess the academic progress of Upward Bound participants, measure program outcomes related to high school graduation, and track college enrollment rates for UB and UBMS participants. Individual participant records were also compared to the federal financial aid files maintained by the Department’s Office of Postsecondary Education for academic years 2000–01 through 2005–06 to provide further information on postsecondary enrollment and other postsecondary indicators. As more data become available, the longitudinal data set will be used to measure the postsecondary persistence and completion rates of UB and UBMS participants.

In addition, this report cites data derived from the Federal TRIO Programs’ funding database and the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System Institutional Characteristics (IPEDS-IC), 2005–06. Information on the target schools attended by participants was obtained from the NCES Common Core of Data (CCD), 2000–01 through 2005–06 academic years.

The CCD’s Public Elementary/Secondary School Universe Survey includes data submitted annually to NCES’s CCD by state education agencies (SEAs) in the 50 states and District of Columbia; by similar education agencies situated in five U.S. commonwealths,
territories, and protectorates;\textsuperscript{6} and by the U.S. Department of Defense and Bureau of Indian Affairs, U.S. Department of the Interior, for publicly funded elementary and secondary schools administered by these agencies. The CCD universe survey includes approximately 94,000 public elementary and secondary schools. The CCD data set makes available information on important characteristics of target schools, e.g., grade span, urbanicity, racial-ethnic and gender distributions, and percentages of students eligible for free or reduced-price meals under the National School Lunch Program.

This report includes analysis of the urbanicity of the target school. Urbanicity is classified as follows: “city” includes schools located within an urbanized area and inside a principal city; “suburb” includes schools located within an urbanized area and outside a principal city; “town” includes schools located within an urban cluster but outside an urbanized area; and “rural” includes schools located outside urban clusters and outside urban areas.

\textsuperscript{6} These areas are American Samoa, Guam, the Northern Marianas Islands, Puerto Rico, and the Virgin Islands.
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