

# **Upward Bound and Upward Bound Math-Science Grantee-Level Performance Results: 2008–09**

## **Introduction**

The U.S. Department of Education is committed to ongoing improvement in managing its programs so as to improve the educational outcomes of students. In its efforts to strengthen the work of its programs, the Department provides grantees, key stakeholders, and the public with data on the programs' performance and with contextual information to encourage reflection, action, and collaboration. The Department uses postsecondary enrollment rates, discussed in detail below, as its measure of the Upward Bound and Upward Bound Math-Science programs' performance.

## **Performance measure for Upward Bound (UB) and Upward Bound Math-Science (UBMS) projects**

The performance measure for UB and UBMS projects is:

- Postsecondary enrollment rate: the percentage of participants expected to graduate high school in 2007–08 for whom there is evidence of enrollment in a postsecondary educational institution by the 2008–09 Annual Performance Report (APR).

Participants in UB and UBMS programs are assigned to an expected high school graduation year cohort upon program enrollment, based on grade level at entry and the year of program entry. The UB longitudinal file (which contains data from 2000–01 through the most recent APR) maintains a single value for each participant's expected high school graduation date, divided into cohorts by year.

UB and UBMS projects do not necessarily become aware of prior 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 at least one year after high school graduation. Postsecondary enrollment rates thus tend to increase over several years.

The specifics of each calculation can be found in the Appendix.

## **Selected Findings**

Table 1 displays the number and percentage of program participants with an expected high school graduation date in 2007–08 for whom there is evidence of enrollment in a postsecondary educational institution by the 2008–09 APR, along with reported postsecondary status. The data are presented at the program level and at the individual project level as well as aggregated by program type (UB or UBMS) and sector of grantee. The calculation methodology for Table 1 can be found in Appendix A.

The UB program-level postsecondary enrollment rate was 81.1 percent of all 2007–08 expected high school graduates. This is an improvement over the enrollment rate of 77.9 percent for those expected to graduate high school in 2006–07, and exceeds the Department’s program-level goal of 70 percent for 2008–09.

The postsecondary enrollment rate for regular UB projects was 80.4 percent, and the postsecondary enrollment rate for UBMS projects was 87.5 percent. On average, projects associated with four-year institutions had nearly identical postsecondary enrollment rates to those at two-year institutions (81.2 percent for both groups), and slightly higher postsecondary enrollment rates than projects associated with secondary schools, non-profit organizations, or other institutions (78.6 percent).

A total of 237 projects did not serve any participants with an expected high school graduation date in 2007–08. A new grant cycle began with the 2007–08 reporting year, with 255 new grants awarded. Because these newly funded projects took in primarily 9<sup>th</sup> and 10<sup>th</sup> grade students during the 2007–08 academic year, they served few participants with an expected high school graduation date in 2007–08; 234 of the 255 new projects did not serve any such participants. The right-most column in Table 1 indicates whether or not each project was newly funded in 2007–08.

In addition to the 234 new projects that did not serve any participants with an expected high school graduation date in 2007–08, three continuing projects also did not serve any such participants (though each of these three projects served participants with other expected high school graduation years).

Beginning with the 2007–08 APR, TRIO instituted a new procedure that helped ensure that projects would enter data for all participants with an expected high school graduation year of 2007–08 or later, with a review process in place for participants who projects wished to drop from the APR. The 2008–09 postsecondary enrollment rate calculations therefore represent the first year that the improved procedures have impacted the enrollment rate calculations. Compared to calculations in previous years, far fewer participants are missing data in the most recent APR (here, 2008–09), and therefore more participants have evidence of postsecondary enrollment in the most recent APR, and overall. These improvements in the APR have led to lower rates of missing data, which may have contributed to improvements in the postsecondary enrollment rate.

### **Limitations of Data and Findings**

First, it is important to note that the enrollment rate is an outcome measure of project performance. The limitations of the dataset used for this analysis (the APRs) do not permit us to determine project impacts, such as the extent to which the postsecondary enrollment rate is a result of participation in UB or UBMS.

In addition, one should keep in mind that the performance measure refers exclusively to outcomes of 2007–08 expected high school graduates, not all program participants.

Participants in other expected high school graduation cohorts are included in this measure in different years; each is assessed one year after expected high school graduation.

Because the dataset does not permit analysis of the roles of all factors that may affect postsecondary enrollment rates in individual projects, **the data should be interpreted with caution; comparing rates between projects could lead to unwarranted conclusions.** For example, a project may have lower than average rates because the project may be serving more students with a high risk of academic failure, who have low educational aspirations, and/or who have low levels of readiness for enrollment in postsecondary education.

For some projects, only a small number of students were expected to graduate in 2007–08. Where only a small number of graduates exist, small changes in numbers can cause significant changes in percentages. For example, a grantee that expects six students to graduate in 2008 will have an enrollment rate of 100 percent if all enroll in postsecondary education, but a rate of only 83.3 percent if just one student does not matriculate.

When possible, data from the Federal financial aid (FAFSA) files was used to bolster APR data on enrollment status. Any program participant who was found in the FAFSA data with a positive financial aid disbursement amount was considered to have enrolled in postsecondary education. Evidence of enrollment from FAFSA data can be used to compensate for missing APR data as well as to confirm APR-based evidence of enrollment. As noted above, out of the 22,872 UB and UBMS participants included in the enrollment rate calculations, 81.1 percent have evidence of postsecondary enrollment. Of the 22,872 participants, nearly five percent have evidence of enrollment from FAFSA data but not from APR data, and just over one quarter have evidence of enrollment from APR data but not from FAFSA data. Around half have evidence from both sources.

There are many reasons why a participant may have evidence from one source but not another. Projects may not have been aware of the enrollment status of participants who had enrollment evidence in FAFSA data. Participants with evidence of enrollment from APR data but not FAFSA data may not have applied for financial aid, or may not have been found in the FAFSA database. The proportion of participants with evidence from one source but not the other is similar to the proportions in previous years of calculations.

### **Efficiency measure for Upward Bound (UB) and Upward Bound Math-Science (UBMS) projects**

For UB and UBMS, the efficiency measure is the difference between the annual cost per participant and the annual cost per participant who had a "successful outcome," also referred to as having persisted. For the purposes of this measure, new, continuing, and reentry participants from 2007–08 are considered to have persisted if they met one of the following criteria:

- They were continuing or reentry participants in 2008–09
- They were prior-year participants in 2008–09 who were either:

- Still enrolled in high school, or
- Enrolled in postsecondary education

Persistence can be achieved either by persisting in the UB/UBMS program or by persisting in school, whether within high school or postsecondary education or progressing from high school to postsecondary education. Thus, participants who experienced successful outcomes in 2008–09 constituted a subset of all new, continuing, or reentry participants from 2007–08. Postsecondary enrollment was calculated as described above in the enrollment rate calculations.

A smaller gap between these two measures of annual cost generally represents a larger proportion of successful participants; if all participants were successful, the efficiency measure would be \$0.

### **Selected Findings**

Table 2 shows the efficiency measure calculations at the individual project level and the program level, as well as aggregated by program type (UB or UBMS) and sector of grantee. The 938 UB projects and 116 UBMS projects included in Table 2 reported 73,571 new, continuing, or reentry participants in 2007–08, of whom 70,436 (95.7 percent) persisted in 2008–09.

The 2008–09 program-level efficiency gap was \$203, which represents an eight percent decrease from the 2007–08 efficiency gap of \$220. The 2008–09 efficiency measure was larger for UB projects (\$211) and smaller for UBMS projects (\$136). As seen in Table 2, smaller efficiency gaps are generally associated with higher proportions of persisting participants.

Table 3 lists the 24 projects excluded from Table 2; 14 were excluded due to significant omissions in fields critical to calculating whether participants stayed in high school or enrolled in postsecondary education, one project submitted a 2008–09 APR but did not submit a 2007–08 APR, and nine projects submitted a 2007–08 APR but reported serving no new, continuing, or reentry participants. The reported efficiency measure calculations include participants and funding from non-excluded projects only; excluded projects accounted for \$7,403,239 in program funding. The exclusion methodology is further explained in Appendix C.

Beginning with the 2007–08 APR, TRIO instituted a new procedure that helped ensure that projects would enter data for all participants with an expected high school graduation year of 2007–08 or later, with a review process in place for participants who projects wished to drop from the APR. Because the 2008–09 efficiency measure primarily involves APR data from the first two years of this procedure (2007–08 and 2008–09), and because nearly all of the new, continuing, and re-entry participants from the 2007–08 APR have an expected high school graduation year of 2007–08 or later, far fewer participants, and by extension far fewer projects, have been excluded from the efficiency measure calculations than in previous years.

For comparison, in the 2007–08 efficiency measure calculations, 81 projects were excluded from the efficiency measure calculations due to missing or invalid data in fields critical to calculating whether participants stayed in high school or enrolled in postsecondary education, compared to 14 such projects excluded from the 2008–09 efficiency measure calculations. These improvements in the APR have led to lower rates of missing data, which may have contributed to improvements in the efficiency rate.

The 2007–08 efficiency measure calculations included 60,222 participants, compared to 73,571 participants included in the 2008–09 efficiency measure calculations. This increase may be partially due to the APR improvements described in the previous paragraph, but can also be partially attributed to the inclusion of the 255 newly-funded projects in 2007–08, which were not included in the 2007–08 efficiency measure because that calculation involved APR data from 2006–07, before these projects were funded.

### **Limitations of Data and Findings**

The efficiency measure ranges from \$0 (for 274 projects with a 100 percent persistence rate) to \$3,509 (for a project with a 78.9 percent persistence rate) across individual projects. These figures should be viewed cautiously, because in some cases they may be misleading. A project might have a gap of \$0, which suggests that a project is working efficiently, but the project may have some significant problems. For example, the project might serve fewer students than it was funded to serve, resulting in an undesirably high cost per participant. But if all those participants persisted in secondary education or enrolled in postsecondary education, then all those participants would be successful, and the cost per successful participant would equal the cost per participant. As a result, the gap for that project would be \$0 even though it had failed to serve the number of students intended. In other cases, projects serving a high percentage of students at high risk for academic failure often have lower percentages of successful participants. Given the possibility of such misinterpretation, it is important to consider the efficiency measure in the context of the other columns in the table, particularly the percentage of successful participants (which ranges from 68.2 percent to 100 percent). In sum, all the data in Table 2 should be interpreted with caution; comparing rates among projects could lead to flawed conclusions.

## APPENDICES

### Appendix A. Calculation methodology for postsecondary enrollment rate (Table 1)

#### Expected High School Graduation Year Cohort

Participants in UB and UBMS programs are assigned to an expected high school graduation year cohort upon program enrollment, based on grade level at entry and the year of program entry. The UB longitudinal file (which contains data from 2000–01 through the most recent APR) maintains a single value for each participant’s expected high school graduation date, divided into cohorts by year.

#### Evidence of Postsecondary Enrollment

Revisions in the APR between 2006–07 and 2007–08 resulted in a change in the fields used to calculate evidence of postsecondary enrollment. Because evidence of enrollment is assessed across both years of APR data, the calculations for evidence from each year are different. The calculations for the 2008–09 APR are similar to the calculations from the 2007–08 APR, with slightly different ranges for the date variables.

Evidence of PSE in 2008–09 is calculated from six APR fields:

- APR Field #44, Reporting of Postsecondary Education Information (*SelfTranCD*): response options 1, 2, 3, or 4
- APR Field #45, First Postsecondary Enrollment Date (*FirstEnrollDT*): any valid entry that contains a year between 2005 and 2009
- APR Field #46, School Code for Postsecondary Institutions at First Enrollment (*PSECDFE*): any valid institution code (6 digits, or E + 5 digits, except for reserve codes 000000, 888888, and 999999)
- APR Field #47, College Status at beginning of academic year being reported, (*PSEGradeLV*): response options 1-5 or 7
- APR Field #48, Degree/Certificate Completed (*DegreeCD*): response options 1-7 or 77
- APR Field #49, Date of Undergraduate Degree (*DegreeDT*): any valid entry that contains a year between 2005 and 2009

Evidence of PSE in 2007–08 is calculated from the same six APR fields:

- APR Field #44, Reporting of Postsecondary Education Information (*SelfTranCD*): response options 1, 2, 3, or 4
- APR Field #45, First Postsecondary Enrollment Date (*FirstEnrollDT*): any valid entry that contains a year between 2005 and 2008
- APR Field #46, School Code for Postsecondary Institutions at First Enrollment (*PSECDFE*): any valid institution code (6 digits, or E + 5 digits, except for reserve codes 000000, 888888, and 999999)
- APR Field #47, College Status at beginning of academic year being reported, (*PSEGradeLV*): response options 1-5 or 7

- APR Field #48, Degree/Certificate Completed (*DegreeCD*): response options 1-7 or 77
- APR Field #49, Date of Undergraduate Degree (*DegreeDT*): any valid entry that contains a year between 2005 and 2008

For 2006–07, evidence of PSE is calculated from nine APR fields:

- APR Field #91, Reporting of Postsecondary Education Information (*SelfTranCD*): response options 1, 2, 3, or 4
- APR Field #92, First Postsecondary School Enrollment Date (*FirstEnrollDT*): any valid entry that contains a year between 2004 and 2007
- APR Fields #93 and #94: School Code for Postsecondary Institutions; first enrollment (*PSECDFE*) and enrollment at end of reporting period (*PSECDEnd*): any valid institution code (6 digits, or E + 5 digits, except for reserve codes 000000, 888888, and 999999)
- APR Field #95: Student Financial Aid Awarded for Postsecondary Attendance (*FinAidRecd*): response options 1-11
- APR Field #96: Postsecondary Enrollment Status (*PSETime*): response options 1, 2, 3, or 7
- APR Field #97: College Grade Level (*PSEGradeLV*): response options 1-11 or 77
- APR Field #98: Postsecondary Academic Standing (*PSEStand*): response options 1, 2, or 7
- APR Field #99: Degree/Certificate Completed (*DegreeCD*): response options 1-7, 10 or 77

Evidence of postsecondary enrollment from the 2000–01 through 2005–06 APRs and Federal financial aid files is represented in the UB longitudinal file by a single variable, *enrolled*, with two values: 1 (evidence of postsecondary enrollment) or 0 (no evidence of postsecondary enrollment). In addition, any non-zero disbursement amount indicated in the 2006–07, 2007–08, or 2008–09 Federal financial aid files (variable *tl\_dis\_p*, Pell award disbursement amount) was accepted as evidence of postsecondary enrollment.

Participants who met any of the criteria above (i.e., who showed evidence of PSE in at least one of these six 2008–09 APR postsecondary fields, or at least one of these six 2007–08 APR postsecondary fields, or at least one of the nine 2006–07 APR postsecondary fields, or who had a value of 1 for the variable *enrolled*, or who had any non-zero disbursement amount indicated in the 2006–07, 2007–08, or 2008–09 Federal financial aid files) were considered to have evidence of PSE in 2008–09.

### Enrollment Rate Calculation

Each project’s postsecondary enrollment rate (Table 1) was calculated by dividing the number of participants expected to graduate in 2007–08 with evidence of enrollment in postsecondary educational institutions by the 2008–09 budget period by the

number of participants in that expected high school graduation cohort served by that grantee, and multiplying by 100.

## Appendix B. Calculation methodology for efficiency measure (Table 2)

### Total Participants

For the efficiency measure (Table 2), the cohort of program participants was the sum of the new, continuing, and reentry participants served in 2007–08 (*PartCD0708* = 1, 2, 3, or 6) and for whom there was also a record in the 2008–09 APR.

### Persisting Participants

Participants in this cohort were considered to be persisting if they met one of the two following criteria:

- Continuing or reentry participant in 2008–09 (*PartCD0809* = 2 or 3), or
- Prior-year participant in 2008–09 (*PartCD0809* = 4) and either
  - Still in high school in 2008–09 (*HSGrad0809* = 1) or
  - With evidence of PSE enrollment (as calculated above in Appendix A)

### Annual Cost per Participant

Each project's annual cost per participant was calculated by dividing the project's 2008–09 funding by the total number of participants included in Table 1, as calculated above.

### Annual Cost per Successful Participant

Each project's annual cost per participant was calculated by dividing the project's 2008–09 funding by the total number of persisting participants, as calculated above.

### Efficiency Measure Calculation

Each project's efficiency measure was calculated by subtracting the project's annual cost per participant from the project's annual cost per successful participant.

### Appendix C. Grantees excluded from Table 2

It is important to note that, while all 2008–09 UB and UBMS grantees are included in Table 1, not all are included in Table 2. Of the 1,078 grantees funded for 2008–09 and included in Table 1, 1,054 were included in Table 2.

Twenty-four UB grantees (and no UBMS grantees) were excluded from Table 2 for three different reasons.

One UB grantee submitted a 2008–09 APR but did not submit a 2007–08 APR:

- Coppin State University, MD (P047A080582)

Nine UB grantees submitted APRs in 2007–08 but reported no new, continuing, or reentry participants in that year:

- Somerset Community College, KY (P047A081141)
- Somerset Community College, KY (P047A081158)
- Turtle Mountain Community College, ND (P047A080894)
- Georgian Court University, NJ (P047A080413)
- Cornell University, NY (P047A080799)
- Salvation Army Niagara Falls Corps, NY (P047A080971)
- San Antonio College, TX (P047A080816)
- Southern Methodist University, TX (P047A080319)
- Tidewater Community College, VA (P047A080901)

Fourteen UB grantees were excluded from Table 2 because 15 percent or more of the new, continuing, and reentry participants served in 2007–08 had missing or invalid data in fields critical to calculating whether participants stayed in high school or enrolled in postsecondary education in 2008–09. A participant record was determined to have “missing or invalid data” if it met one or more of the following criteria:

- There was no 2008–09 APR record for the participant
- The 2008–09 record had unknown or invalid data (i.e., any response other than options 1, 2, 3, 4, 5, 6, or 7) for Participant Status (*PartCD*)
- The 2008–09 record was of a prior-year participant (*PartCD* = 4) with an unknown or invalid value (i.e., any response other than options 1, 2, 3, 4, or 5) for High School Graduation Status (2008–09 APR Field #31, *HSGrad*) and no evidence of PSE as noted above.

The following UB grantees were excluded from Table 2 due to significant omissions in fields critical to calculating whether participants stayed in high school or enrolled in postsecondary education, as described above:

- University of Alaska/ Aleutians Campus, AK (P047A070709)

- Delaware Technical & Community College, DE (P047A080461)
- RCIP, Inc., GA (P047A081114)
- Dime Child Foundation, IL (P047A080761)
- Southern Illinois University/ Edwardsville, IL (P047A080484)
- Southern Illinois University/ Edwardsville, IL (P047A080489)
- Chief Dull Knife College, MT (P047A070624)
- Seton Hall University, NJ (P047A070495)
- CUNY/Queens College, NY (P047A080933)
- Wright State University, OH (P047A070520)
- Inter American University of Puerto Rico/ San German, PR (P047A070178)
- Boys & Girls Clubs of Greater Fort Worth, TX (P047A070130)
- Laredo Community College, TX (P047A070632)
- University of Houston, TX (P047A080472)

The entire list of excluded grantees is included as a stand-alone reference in Table 3.