Upward Bound and Upward Bound Math-Science Grantee-level Performance Results: 2006–07

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 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 2005–06 for whom there is evidence of enrollment in a postsecondary educational institution by the 2006–07 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 2005–06 for whom there is evidence of enrollment in a postsecondary educational institution by the 2006–07 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. Seven grantees

were excluded from Table 1 because they did not submit a 2006–07 APR; details on these grantees can be found in Appendix C.

The UB program-level postsecondary enrollment was 79.0 percent of all 2005–06 expected high school graduates. This is higher than the enrollment rate of 78.3 percent for those expected to graduate high school in 2004–05 and also higher than the Department's program-level goal of 65 percent for those two years.

The postsecondary enrollment rate for regular UB projects was 77.7 percent, and the postsecondary enrollment rate for UBMS projects was 87.8 percent. Across both program types, projects associated with two-year institutions had, by a small margin, the highest postsecondary enrollment rates (80.3 percent; higher than the overall program rate of 79.0 percent). Projects associated with four-year institutions reported slightly lower enrollment rates (78.7 percent) and projects that were not associated with postsecondary institutions reported the lowest enrollment rates (76.5 percent).

Of the 19,545 cohort members with evidence of enrollment in PSE, 12,213 (62.5 percent) had a valid reported postsecondary status. At the program level, 88.2 percent of these 12,213 participants were in good academic standing, 3.0 percent were not in good standing, and 8.9 percent were postsecondary stopouts. Table 1 presents participants' academic standing by program type (UB or UBMS) and type of grantee institution.

Table 3 lists the seven 2006–07 UB and UBMS grantees that were excluded from Table 1 for failing to submit a 2006–07 APR. The exclusion methodology is fully explained in Appendix C.

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 2005–06 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 2005–06. 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 2006 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.

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 2005–06 are considered to have persisted if they met one of the following criteria:

- They were continuing or reentry participants in 2006–07
- They were prior-year participants in 2006–07 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 2006–07 constituted a subset of all new, continuing, or reentry participants from 2005–06. 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 652 UB projects and 108 UBMS projects included in Table 2 reported 60,822 new, continuing, or reentry participants in 2005–06, of whom 57,060 (93.8 percent) persisted in 2006–07.

The 2006–07 program-level efficiency measure was $278, which represents an increase from the 2005–06 efficiency measure of $210. The overall percentage of participants who persisted was lower in 2006–07 (93.8 percent) than in 2005–06 (95.2 percent), for undetermined reasons, and as seen in Table 2, smaller efficiency gaps are generally associated with higher proportions of persisting participants. The 2006–07 efficiency measure was slightly higher for UB projects ($290) and lower for UBMS projects ($188).

Table 3 lists the 126 projects excluded from Table 2; 117 were excluded due to significant omissions in fields critical to calculating whether participants stayed in high school or enrolled in postsecondary education, one project did not submit a 2005–06 APR, six projects did not submit a 2006–07 APR, one project did not submit either a 2005–06 APR or a 2006–07 APR, and one project submitted a 2005–06 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 $42,731,445 in program funding. The exclusion methodology is further explained in Appendix C.

Limitations of Data and Findings

The efficiency measure ranges from $0 (for 124 projects with a 100% persistence rate) to $7,218 (for a project with a 35.2 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 35.2 percent to 100 percent as described above). In sum, all the data in Table 2 should be interpreted with caution; comparing rates among projects could lead to flawed conclusions.

APPENDIX

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

Evidence of PSE was calculated from nine fields in the 2006–07 APR:

- 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 1994 and 2006
- 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, 777777, 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 1–10 or 77

Participants who met any of the criteria above (i.e., who showed evidence of PSE in at least one of these nine APR postsecondary fields) were considered to have evidence of PSE in 2006–07. The UB longitudinal file contains a derived variable that represents similar calculations from 2000–01 through 2005–06 as well as evidence in the form of financial aid disbursements from federal financial aid files in the same years. Evidence of PSE from prior years, as represented by this derived variable, also counted as evidence of PSE in the current calculations. In other words, participants with any evidence of PSE from 2000–01 through 2006–07 were considered as "enrolled." The 2006–07 data file was not supplemented with financial aid data.

Enrollment Rate Calculation

Each project's postsecondary enrollment rate (Table 1) was calculated by dividing the number of participants expected to graduate in 2005–06 with evidence of enrollment in postsecondary educational institutions by the 2006–07 budget period by the number of participants in that expected high school graduation cohort served by that grantee, and multiplying by 100.

Postsecondary Status

Postsecondary standing is reported in APR Field #98: Postsecondary Academic Standing (*PSEStand*). The reported percentage for each category reflects the proportion among those with a valid reported postsecondary status only; 62.5 percent of cohort participants with evidence of enrollment in PSE also had a valid reported postsecondary status.

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 2005–06 (*PartCD0506* = 1, 2, or 3) and for whom there was also record in 2006–07 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 2006–07 (*PartCD0607* = 2 or 3), or
- Prior-year participant in 2006–07 (*PartCD0607* = 4) and either
    - Still in high school in 2006–07 (*HSGrad0607* = 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 2006–07 funding by the total number of participants included in Table 2, as calculated above.

Annual Cost per Successful Participant

Each project's annual cost per participant was calculated by dividing the project's 2006–07 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 Tables 1 and 2

It is important to note that not all 2006–07 UB and UBMS grantees are included in Tables 1 and 2. Of the 886 grantees funded for 2006–07, 879 were included in Table 1 and 760 were included in Table 2.

Seven UB grantees did not submit a 2006–07 APR and were thus excluded from both Table 1 and Table 2:

- Fort Belknap College, MT (P047A030035)
- Triton Community College, IL (P047A030159)
- Bloomfield College and Seminary, NJ (P047A030188)
- Tidewater Community College, VA (P047A030423)
- Richard J. Daley College, IL (P047A030703)
- University of South Carolina/ Upstate, SC (P047A031172)
- Ohio Dominican College, OH (P047A040458)

One UB and one UBMS grantee did not submit a 2005–06 APR and were thus excluded from Table 2:

- Fort Belknap College, MT (P047A030035) (also failed to submit a 2006–07 APR and thus also excluded from Table 1)
- University of California/ LaJolla, CA (P047M030265)

One UB grantee submitted APRs in both years but reported no new, continuing, or reentry participants in 2005–06 and was thus excluded from Table 2:

- Trinity College, DC (P047A030954)

One hundred and seventeen UB and UBMS grantees were excluded from Table 2 because 15% or more of the new, continuing, and reentry participants served in 2005–06 had missing or invalid data in fields critical to calculating whether participants stayed in high school or enrolled in postsecondary education in 2006–07. A participant record was determined to have "missing or invalid data" if it met one or more of the following criteria:

- There was no 2006–07 APR record for the participant;
- The 2006–07 record had unknown or invalid data (i.e., any response other than options 1, 2, 3, 4, or 5) for Participant Status (*PartCD*)
- The 2006–07 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 (2006–07 APR Field #46, *HSGrad*) and no evidence of PSE in fields #91–99 as noted above.

The following 117 UB and UBMS 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:

- College of Micronesia/ FSM/ Chuuk, PW (P047A030011)
- University of Nevada/ Reno, NV (P047A030029)
- University of Nevada/ Reno, NV (P047A030033)
- Mercer County Community College, NJ (P047A030083)
- Langston University, OK (P047A030108)
- CUNY/ John Jay College, NY (P047A030114)
- Western Texas College, TX (P047A030120)
- University of Alaska/ Fairbanks, AK (P047A030125)
- Southern University/ New Orleans, LA (P047A030153)
- St. Paul's College, VA (P047A030160)
- Spring Hill College, AL (P047A030162)
- College of the Desert, CA (P047A030252)
- North Carolina A & T State University, NC (P047A030267)
- Camden County College, NJ (P047A030278)
- Millersville University of PA, PA (P047A030280)
- Seton Hall University, NJ (P047A030292)
- Northland College, WI (P047A030333)
- Mt. San Jacinto College, CA (P047A030347)
- St. Augustine's College, NC (P047A030371)
- Dillard University, LA (P047A030384)
- University of Maine/ Presque Isle, ME (P047A030388)
- Northern Michigan University, MI (P047A030389)
- Vaughn College of Aeronautics and Technology, NY (P047A030398)
- Coahoma Community College, MS (P047A030399)
- Long Beach City College, CA (P047A030405)
- Ohio Wesleyan University, OH (P047A030429)
- Massachusetts Institute of Technology, MA (P047A030443)
- Texas College, TX (P047A030485)
- Texas A & M University/ Corpus Christi, TX (P047A030494)
- Des Moines Area Community College, IA (P047A030523)
- Community College of Baltimore County/ Cantonsville Campus, MD (P047A030529)
- Morehouse College, GA (P047A030531)
- Surry Community College, NC (P047A030542)
- Marist College, NY (P047A030553)
- Malcolm X College, IL (P047A030557)
- Central Piedmont Community College, NC (P047A030565)
- New Jersey Institute of Technology/ ESL, NJ (P047A030566)
- Jarvis Christian College, TX (P047A030575)
- University of Southern Colorado, CO (P047A030583)

- Valencia Community College/ West, FL (P047A030589)
- University of New Orleans, LA (P047A030611)
- Indiana State University, IN (P047A030616)
- University of Georgia/ Athens, GA (P047A030637)
- Metropolitan State College of Denver, CO (P047A030643)
- Inter American University of Puerto Rico/ San German, PR (P047A030644)
- University of Idaho/ Moscow, ID (P047A030649)
- Hampton University, VA (P047A030651)
- State Fair Community College, MO (P047A030663)
- Illinois Central College, IL (P047A030674)
- Atlanta Metropolitan College/ Clayton County, GA (P047A030684)
- Ute Indian Tribe, UT (P047A030702)
- University of The Sacred Heart, PR (P047A030704)
- Laredo Community College, TX (P047A030710)
- Danville Community College, VA (P047A030719)
- Roxbury Community College, MA (P047A030736)
- Polk Community College, FL (P047A030746)
- Salem International University, WV (P047A030749)
- Kankakee Community College, IL (P047A030768)
- Northwest Arkansas Community College, AR (P047A030769)
- Eastern Michigan University, MI (P047A030789)
- Texas State University/ San Marcos, TX (P047A030800)
- California State Polytechnic University/ Pomona, CA (P047A030816)
- University of North Carolina/ Pembroke, NC (P047A030818)
- Southwestern Oregon Community College, OR (P047A030837)
- Lane College, TN (P047A030844)
- Missouri Southern State College, MO (P047A030908)
- Philander Smith College, AR (P047A030936)
- Embry-Riddle Aeronautical University, AZ (P047A030940)
- Rogers State University, OK (P047A030956)
- Salvation Army Boys & Girls Clubs of Metropolitan Houston, TX (P047A030985)
- Atlanta Metropolitan College/ Fulton County, GA (P047A031003)
- Weatherford College, TX (P047A031024)
- University of Maryland/ College Park, MD (P047A031025)
- Carl Albert State College/ Poteau, OK (P047A031032)
- University of Texas/ Pan American, TX (P047A031041)
- University of South Carolina/ Lancaster, SC (P047A031067)
- Florida National College South Campus, FL (P047A031068)
- CUNY/ Bronx Community College, NY (P047A031070)
- George Washington University, DC (P047A031086)
- Texas Tech University, TX (P047A031092)
- University of Tennessee/ Chattanooga, TN (P047A031095)
- Huston-Tillotson College, TX (P047A031097)

- Holyoke Community College, MA (P047A031121)
- Prince George's Community College, MD (P047A031150)
- Utah Valley State College, UT (P047A031157)
- Inter American University of Puerto Rico/ Barranquintas & Aquadilla Campus, PR (P047A031165)
- University of New Orleans/ Lake Front Campus, LA (P047A031184)
- CUNY/ Queens College, NY (P047A031193)
- Anoka-Ramsey Community College/ Champlin, MN (P047A031200)
- Northeast Iowa Community College/ Calmar, IA (P047A031207)
- Rio Hondo College, CA (P047A040307)
- Minneapolis Community & Technical College, MN (P047A040577)
- Harcum College, PA (P047A040815)
- Columbia University/ New York, NY (P047A040986)
- Tougaloo College, MS (P047A040991)
- University of Georgia, GA (P047A041036)
- University of Minnesota/ Minneapolis, MN (P047A041037)
- Florida A & M University, FL (P047A041074)
- College Board, DC (P047A041106)
- Southwest Virginia Community College, VA (P047A041124)
- Elgin Community College, IL (P047A041152)
- Texas Southern University, TX (P047M030015)
- Boys & Girls Harbor, Inc., NY (P047M030026)
- Inter American University of Puerto Rico/ Bayamon, PR (P047M030033)
- Indiana State University, IN (P047M030053)
- East-West University, IL (P047M030084)
- University of Alaska/ Fairbanks, AK (P047M030105)
- Western Carolina University, NC (P047M030119)
- Northeastern Illinois University, IL (P047M030153)
- University of Southern California/ Los Angeles, CA (P047M030155)
- Cincinnati State Technical and Community College, OH (P047M030228)
- Southwest Virginia Community College, VA (P047M030258)
- Murray State University, KY (P047M030272)
- University of Idaho, ID (P047M030282)
- South Carolina State University, SC (P047M030286)
- Carl Albert State College, OK (P047M040204)
- North Alabama Center for Educational Excellence, AL (P047M040215)

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