Random Assignment Used to Evaluate Program Effectiveness

The central purpose of program evaluation research is to test whether education programs help the students they are designed to serve. Random assignment is a preferred tool for researchers seeking to determine the impact, or effect, of an education program on student outcomes. Basically, the random assignment process involves creating a list of eligible students, those who meet the defined criteria for the particular study, for example, those eligible for an intensive college preparation program, and randomly assigning each (e.g., using a lottery process) to either the program or a control condition. Students assigned to the control condition have access to any services not provided by the program being studied. The actual number of students assigned to the program and control condition is based on statistical considerations, such as the magnitude of the impact one wants to detect.

Ethical concerns are sometimes raised about random assignment. In cases in which a program lacks the resources to serve all eligible students who are willing to participate and who might benefit from the program if it is proven effective, random assignment can be a fair way of selecting participants, because it gives all eligible students an equal chance of being selected. To ensure that any random assignment evaluation respects the rights of all human subjects, institutional review board approval, similar to that required for medical trials, is required for every evaluation sponsored by the U.S. Department of Education’s Institute of Education Sciences (IES), including the new national evaluation of Upward Bound.

Because students are assigned to the program or control condition wholly at random, the chances of more or less motivated (or skilled or advantaged) students being assigned to one condition or another are the same. Consequently, the only difference between the two groups is that students in the program group were assigned to the program, whereas students in the control group were not. Any subsequent differences between the two groups, therefore, can be attributed to the program itself and not to other factors that might influence student outcomes. The same cannot be said of “pre-post” or “matched comparison group” studies, for which it is uncertain whether differences in outcomes between participants and non-participants are due to the program itself or to other factors, such as students’ maturity or motivation.

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This article was adapted from the 2003 IES publication Random Assignment in Program Evaluation and Intervention Research: Questions and Answers, available at: http://www.ed.gov/rschstat/eval/resources/randomqa.html.
It is not necessary to do extraordinary things to get extraordinary results.

—Warren Buffett
American investor, businessman and philanthropist

The federal TRIO office is pleased with the positive direction in which Upward Bound (UB) is moving. The minimum UB grant award was increased to $250,000, recognizing that serving students of greatest needs requires more resources. Additionally, the most recent competition saw several major changes regarding participant selection, mandatory objectives, and evaluation. While it is human nature to resist change, the TRIO community showed great support for the absolute priority whereby support will increase to those with a high risk of academic failure, generally those from the lowest income levels who are not performing well in high school but have college potential. By utilizing the absolute priority in the competition and application, UB projects will be able to provide more UB services to these students.

TRIO’s regional organizations were most helpful in hosting sessions on the evaluation component of the absolute priority, and the projects that will participate in the national evaluation project have been selected. This evaluation is intended to improve the Upward Bound program by identifying grantee practices and strategies associated with positive impacts on student outcomes. It also will show student impacts and may contribute to official policy assessments, such as the Office of Management and Budget’s ratings of the Upward Bound program’s effectiveness.

We had a tremendous response to the UB grant application announcement and an equally impressive number of applications for the McNair grants. The regular, Math-Science, and Veterans UB currently are being competed. Results for all competitions are expected by June.

The nation loses more than $3.7 billion a year because too many high school students are not prepared to succeed in college or work. See http://www.ecs.org/00CN3151 for more information.

In an effort to promote ongoing dialogue with grantees within the grant cycle, the federal TRIO office has begun issuing interim reports on the various TRIO programs. These interim reports present grantee and participant demographics; examine progress on program outcome measures; and provide other relevant observations about the TRIO programs, as well as provide a quick turnaround in getting program data back to grantees. They differ from the traditional program profile reports in that they are shorter and focus primarily on program outcomes and related demographic data.

The first interim reports have recently been released and address Talent Search (TS) and Educational Opportunity Centers (EOC). These reports convey data on the second and third years of the most recent complete funding cycle (2002–03 and 2003–04), compare this cycle and previous cycles, and make information available on select grantee-participant characteristics and program outcome measures through 2004. These reports are available on the TRIO home page, http://www.ed.gov/ope/trio.

Future interim reports most likely will be more concise than the 2003–04 funding cycle reports as they will focus more on outcomes data and will not repeat demographic information that does not change much from year to year.
Q: How does serving more or less than the required number of participants affect the prior experience (PE) points calculation for future competitions?

A: TRIO program grantees may earn up to 15 prior experience (PE) points for use in the next competition by meeting the regulatory requirements that address the number and type of participants served as well as the measures of success for these participants. Prior experience points are earned over a three-year period of the grant cycle, with each of these three years being calculated separately; up to 5 points may be earned each year.

In calculating PE points, there are two principles that apply, depending on the case-specific circumstances. First, in cases where a grantee serves a number of participants that is equal to or greater than the number of participants it was funded to serve, the number of participants used for PE calculations is the greater of the two numbers. For example, if a project funded to serve 900 participants serves 1,000, two-thirds of 1,000 (or 667) must be low-income and first-generation.*

Second, in cases where a grantee serves fewer than the number of participants for which a project was funded, the number of participants the grantee was funded to serve is used in the PE calculations. Additionally, the difference between the number of participants the grantee was funded to serve and the actual number served is added to the cohort to be measured. For example, a project funded to serve 600 participants serves 550 participants. The project may still earn PE points if 400 of those participants are low-income and first-generation,* as two-thirds of 600 is used, not two-thirds of 550. Another example is that a project reports that 400 of the 550 participants served are eligible to be retained in secondary school. For purposes of calculating the retention number, 450 participants who are eligible to be retained is the number used in the calculation because there are 50 participants for whom the grantee received funding but whom it did not serve, so this number is added to the 400 participants reported by the grantee as eligible to be retained.

Calculating PE points in this manner provides a level of equity and accountability. In one instance, a grantee argued that it was entitled to PE points for its low-income and first-generation students because 68 percent of its participants were low-income and first generation. However, it was funded to serve 600 participants and actually served only 208 (37 percent of the total funded to be served). This grantee and others who fail to meet their funded numbers should not receive an advantage by being awarded PE points for achieving the proposed percentage based on a smaller group of participants.

Although grantees that do not serve the number of participants for whom they were funded have not fully met the terms of their grants, extenuating circumstances do exist. The calculations discussed above provide the opportunity for grantees that serve slightly fewer than the number for which they were funded to still earn PE points in other areas. Additionally, these calculations do not reward those grantees who achieve their specified percentages by serving significantly fewer than the number funded to serve.

Prior experience points should not be confused with “substantial progress.” Substantial progress is determined yearly as the benchmark for continuation funding for each year of the grant award and may be met without PE points being earned. PE points are awarded on a grantee’s achieving an objective, not on making progress towards that objective.

Data used to calculate PE points are obtained primarily from the funded applications and the annual performance reports submitted by grantees. For each regulatory objective, a grantee must have a corresponding objective in the funded application to be eligible to receive PE points. Unfortunately, a few projects are unable to earn PE points because they neglected to include the applicable objectives in their applications. As the new standardized objectives for each TRIO program were developed, the criteria for PE points were considered. For future competitions, the use of these standardized objectives will eliminate the possibility of omitting the relevant objectives.

* In the case of the Student Support Services Program, the two-thirds may be students who are low-income and first-generation or two-thirds may be students with disabilities.

PRIOR EXPERIENCE REGULATIONS

The provisions for earning PE points in the federal TRIO programs are outlined in the regulations. Specific regulations for each program are as follows:

- Training – 34 CFR § 642.32(b);
- Talent Search – 34 CFR § 643.22(b);
- EOC – 34 CFR § 644.22(b);
- UB – 34 CFR § 645.32(b);
- SSS – 34 CFR § 646.22(b); and
- McNair – 34 CFR § 647.22(b).
Grant applications were read and scored in January, February, and April. Awards will be made in May and June.

**TS** – The interim report has been published and is available on the TRIO Web site.

**EOC** – The interim report has been published and is available on the TRIO Web site.

**McNair** – Applications from the recent McNair competition will be read in May and June.

**CCAMPIS** – The Department of Education is conducting a study regarding child care services provided by CCAMPIS and non-CCAMPIS grantee institutions to low-income postsecondary students. The Web-based *Child Care Survey of Postsecondary Institutions* was sent to CCAMPIS grantees from 2001 and 2002 and completed in March 2007. If necessary, the Department may survey another group of institutions funded under the CCAMPIS Program in the fall of 2007.

**Training** – Training opportunities for May and June are listed to the right. Visit the TRIO Web site for registration information.

**Priority 1 – fiscal and project management**
- Ongoing through September 30
  - Online at [http://depts.washington.edu/trio/training](http://depts.washington.edu/trio/training)

**Priority 2 – legislation and regulations**
- June 4–29 (SSS) – Online at [http://www.lcsc.edu/triotraining](http://www.lcsc.edu/triotraining)

**Priority 3 – counseling, retention, and graduation strategies**
- Ongoing through September 30
  - Online at [http://depts.washington.edu/trio/training](http://depts.washington.edu/trio/training)

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Partnering once again with the Office of Federal TRIO Programs, the Educational Credit Management Corporation (ECMC) Foundation has developed *PERSIST: A Comprehensive Guide for Student Success in Higher Education*. This tool kit assists postsecondary educators as they help low-income, first-generation college students effectively navigate the varied aspects of the college experience so that they persist through and successfully graduate from college.

*PERSIST* is a brand-new guide that will help you assess your school’s retention efforts and assist SSS and McNair programs in achieving their goals. In addition to the guide, ECMC is presenting three training opportunities for SSS and McNair grantees on *PERSIST*. Over 130 SSS and McNair grantees participated in the April 10 training in Atlanta. The next trainings will be held May 23, in Chicago, and June 14, in Denver. Invitation letters and registration information for the trainings have been sent.

The curriculum guide and all-day training session are free. Grant funds may be used to cover travel costs. *PERSIST* is available online. For more information and to reserve your place, go to: [http://www.ecmcfoundation.org/persist/PERSISTTraining.html](http://www.ecmcfoundation.org/persist/PERSISTTraining.html)

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Character building begins in our infancy, and continues until death.

—Eleanor Roosevelt
Former first lady

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**UPWARD BOUND COMPETITION STATS**

The number of applications received—
- 1,032 Regular UB,
- 290 UB Math and Science, and
- 90 Veterans UB.

The approximate number of projects to be funded—
- 780 Regular UB,
- 42 Veterans UB, and
- 128 UB Math and Science.