



Bridging the Gap: An Impact Study of Eight Developmental Summer Bridge Programs in Texas

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Across the country, a growing number of recent high school graduates are participating in summer bridge programs. These programs provide accelerated and focused learning opportunities in order to help students acquire the knowledge and skills needed for college success. The state of Texas has given particular attention to summer programs as a way to increase students' college readiness. During the past several years, the Texas Higher Education Coordinating Board (THECB) has provided support to colleges establishing developmental summer bridge programs offering intensive remedial instruction in math, reading, and/or writing, along with an introduction to college. In contrast with traditional developmental education course

sequences, which may span several semesters, the summer bridge programs were designed to help underprepared students build competencies over the course of several weeks before entering college.

While THECB funding for summer bridge programs has diminished, this type of program model remains popular in Texas and across the country. Nevertheless, little rigorous empirical research has been conducted on the effectiveness of summer bridge programs (Ackermann, 1990; Garcia, 1991; Myers & Drevlow, 1982; Santa Rita & Bacote, 1997). To address this gap in the research, in 2009 the National Center for Postsecondary Research (NCPR) launched an evaluation of summer bridge programs

at eight sites in Texas to assess whether they reduce the need for developmental coursework upon fall matriculation and improve student outcomes in college.

The Developmental Summer Bridge Programs

The developmental summer bridge programs in this study were offered in the summer of 2009, primarily to recent high school graduates, at eight institutions of higher education—two open-admissions four-year institutions and six community colleges. Students attended the developmental summer bridge programs for three to six hours daily for four to five weeks and received instruction in at least one area of academic need—math, reading, or writing—and guidance in the “college knowledge” needed to navigate new academic terrain. All of the developmental summer bridge programs included four common features: accelerated instruction in math, reading, and/or writing; academic support; a college knowledge component; and the opportunity to earn a \$400 stipend. A previous NCPR report (Wathington et al., 2011) provides detailed information about the implementation of these programs.

The Research

The evaluation employed an experimental design to measure the effects of the programs on college enrollment and success. At each college, students who consented to participate in the study were randomly assigned to either a program group that was eligible to participate in a developmental summer bridge program or a control group that was eligible to use any services that the college provided other than the summer bridge programs. Random assignment creates two groups that are similar on all characteristics, including those that can be measured, such as age or academic attainment, and those that are more difficult to measure, such as motivation. This ensures that any differences in observed outcomes—called *impacts*—can

be attributed to participation in the developmental summer bridge programs.

Eligible students who applied for admission into a developmental summer bridge program and agreed to participate in the study were included in the research sample. After consenting to participate and completing a baseline intake form, these students were randomly assigned to either the program group or the control group. About 60 percent of the students were assigned to the program group and given the opportunity to take one of the available slots in the summer bridge program (793 students), while about 40 percent were assigned to the control group and were able to participate in other college services but were not admitted to the program itself (525 students). Students in both groups consented to have their outcomes tracked for two full academic years.

NCPR collected and analyzed academic outcome data through the spring semester of 2011 for both program and control group students. This Brief presents the impact findings of the study, revealing whether the opportunity to participate in a summer bridge program influenced academic outcomes during the two years following participation. The primary outcomes tracked in this study were persistence, accumulation of credits, and progression through the developmental sequence and into students’ first college-level math, reading, and writing courses.

Main Findings

After two years of follow-up, these are the main findings of this study:

- The programs had no effect on the average number of credits attempted or earned. Program group and control group students attempted the same number of credits (30.3). Students in the program group earned an average of 19.4 credits, and students in the control group earned an average of 19.9 credits; the difference in their outcomes is not statistically significant.

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- The programs had an impact on first college-level course completion in math and writing that was evident in the year and a half following the program but no impact on first college-level course completion in reading during this same period. On average, students in the program group passed their first college-level math and writing courses at higher rates than students in the control group during this period. By the end of the two-year follow-up period, however, the differences between the two groups are no longer statistically significant.
 - There is no evidence that the programs impacted persistence. During the two-year follow-up period, students in the program group enrolled in an average of 3.3 semesters, and students in the control group enrolled in an average of 3.4 semesters, a difference that is not statistically significant.

Program Costs

NCPR performed an analysis of the cost of the developmental summer bridge program. The sites varied in terms of program duration, intensity, and enrollment, and total costs to run the program during the summer of 2009 ranged from \$62,633 to \$296,033. Across the eight sites, per student costs ranged from \$835 to \$2,349. The average cost per student across all eight sites was \$1,319 (with a standard deviation of \$502); this figure includes the stipend of up to \$400 per participant. Some costs may be interpreted as “start-up” costs, which are unlikely to be needed if the programs are run in subsequent years.

We also calculated the college-level credit accumulation that the developmental summer bridge programs would have had to produce in order to be cost effective on this outcome measure. Specifically, we considered how many additional college credits a developmental summer bridge program student would need to earn to justify the cost of the program. In order to do this, we assigned a monetary cost of \$338 to college credits earned, based on the typical cost of providing these credits in Texas. The program group would have had to earn

an additional 3.8 college-level credits on average for the program to justify its costs or “break even.”

Implications

Our findings suggest that the developmental summer bridge programs contributed to positive outcomes in college-level course completion in math and writing that were evident during the first year and a half after program completion. However, the programs did not lead to increases in persistence or overall credit completion, raising the question of whether our theory of change and the changes in measured outcomes that we hypothesized were reasonable were too ambitious. It may be that we should not expect to find long-term impacts on credit accumulation and persistence from a short, intensive summer program. First-year developmental education students may need further support for greater impacts to be achieved.

In addition, our research suggests that accelerating students’ completion of introductory college-level courses in math or English may not lead to the accumulation of more college credits overall. If the ultimate goal is college credential attainment, and credit accumulation indicates progress toward attaining a credential, improving academic preparedness through developmental summer bridge programs or other similar programs may not adequately promote attainment of this goal. Policymakers and practitioners concerned with college completion may want to consider approaches that go further in assisting students in ongoing credit accumulation and credential attainment.

Finally, our break-even cost analysis suggests that students in the developmental summer bridge programs would need to have earned an average of almost four additional college credits to justify the cost of the program (courses are typically worth three credits). Given that no impact on credit accumulation was found, college practitioners and policymakers may reasonably view the programs as expensive. Educators may want to consider if there are ways to reduce costs by embedding support programs such as these into the regular high school or college schedule.

Concluding Thoughts

Similar to other innovative developmental education programs that have been rigorously evaluated (e.g., Visher, Weiss, Weissman, Rudd, & Wathington, 2012), the developmental summer bridge programs studied here were found to have modest positive impacts in the short term. What is clear from this study and other developmental education research is that simple, short-term interventions yielding strong, long-term effects are difficult to find. With this in mind, we offer two suggestions for advancing the work of supporting underprepared students: (1) introducing new partnerships between high schools and colleges that reduce the need for remediation in college and (2) providing more support and transitional experiences to help students reach and sustain attainment goals. Because educational attainment is the result of a long process influenced by many factors, providing supports to students that span their years in high school and college may help them to develop the skills and knowledge required for postsecondary success.

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The National Center for Postsecondary Research (NCPR) was established by a grant (R305A060010) from the Institute of Education Sciences of the U.S. Department of Education. The Texas Developmental Summer Bridge Programs Study is supported by NCPR and by Houston Endowment.

The contents of this Brief were developed under a grant (R305A060010) from the Institute of Education Sciences, U.S. Department of Education. However, those contents do not necessarily represent the policy of the Institute or the U.S. Department of Education, and you should not assume endorsement by the federal government. The findings and conclusions reported here do not necessarily represent the official positions or policies of the funders.



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This Brief is based on an NCPR report titled “Bridging the Gap: An Impact Study of Eight Developmental Summer Bridge Programs in Texas,” which is available for download at www.postsecondaryresearch.org.