

Executive Summary

Getting Ready for College

An Implementation and Early Impacts Study of Eight Texas Developmental Summer Bridge Programs

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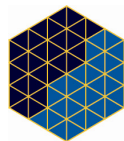
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Overview

In 2007, the Texas Higher Education Coordinating Board (THECB) funded 22 colleges to establish developmental summer bridge programs. Aimed at providing an alternative to traditional developmental education, these programs involve intensive remedial instruction in math, reading, and/or writing and college preparation content for students entering college with low basic skills. In 2009, the National Center for Postsecondary Research (NCPR) launched an evaluation of eight developmental summer bridge programs in Texas (seven at community colleges and one at an open-admissions four-year university), the early findings of which are described in this report.

Students who participated in the study were randomly assigned to the program group or the control group. Program group students participated in the developmental summer bridge programs, while control group students received colleges' regular services. All developmental summer bridge programs had four common features: accelerated instruction in math, reading, and/or writing; academic support; a "college knowledge" component; and the opportunity for participants to receive a \$400 stipend.

The main findings of this preliminary report are:

- All eight programs in the study were implemented with reasonable fidelity to the model framed by the THECB, but they varied on some key dimensions.
- Program costs averaged about \$1,300 per student but varied widely.
- Program group students did not enroll in either the fall or spring semester at significantly different rates than control group students; enrollment rates were high for both groups.
- There is evidence that the program students were more likely to pass college-level courses in math and writing in the fall semester following the summer programs. The findings also suggest that program students were more likely to attempt higher level reading, writing, and math courses compared with control group students.

Preface

Each year, colleges across the nation, and open-access community colleges in particular, face a difficult challenge — how to improve the skills of incoming students who arrive underprepared for college-level coursework. Typically, colleges recommend that underprepared students enroll in developmental education courses; nationally, almost 60 percent of community college students take at least one developmental education course. However, taking developmental courses delays the accumulation of college credits, and evidence suggests that the more developmental courses students must take, the less likely they are to ultimately earn a degree or credential.

Developmental summer bridge programs may offer a partial solution to this problem. Designed to reduce the need for developmental education in college, summer bridge programs provide recent high school graduates with remedial instruction in reading, writing, or math, or some combination of these, along with an introduction to college. These programs, which typically run for four to six weeks during the summer, may allow students to advance through the developmental curriculum in a compressed time frame and ideally enroll in college-level courses in the fall semester.

In addition to supporting students' academic progress, summer bridge programs may also help students make the psychological and emotional adjustments involved in the transition from high school to college. The relationships that students develop with their peers and program faculty during the intensive program may strengthen their ties to college. Summer bridge programs may also help students become familiar with the support services that colleges offer and how to access them.

Recognizing the need to increase participation and success in higher education, in 2007 the Texas Higher Education Coordinating Board (THECB) began to encourage the creation of developmental summer bridge programs and other similar initiatives around the state. In 2009, the National Center for Postsecondary Research (NCPR) began a collaboration with eight Texas colleges and the THECB to study the effectiveness of the developmental summer bridge program model. This report describes their implementation and reports early findings on their impact on student outcomes. A final report, to be released next year, will describe students' progression through developmental education, their success in college-level courses, and their persistence into and through the second year of college. Despite the popularity of summer bridge programs, little empirical research on their implementation or outcomes has previously been conducted. The research in this report represents an important step toward developing an understanding of how these programs work and what benefits they may provide for students.

The early results described here are modest but encouraging. While the eight developmental summer bridge programs examined had no effect on college enrollment rates, they appear to have improved student success rates in entry-level college courses in math and writing. Reducing the barriers to college-level coursework for underprepared students may increase the likelihood that these students will persist and earn a college credential. Developmental summer bridge programs, then, may form an important part of a strategy to improve completion rates at colleges in Texas and elsewhere.

Thomas Bailey
Director, NCPR

Acknowledgments

We would like to first express our deep gratitude to the administrators and faculty at each of the eight colleges that participated in this study: El Paso Community College, Lone Star College–CyFair, Lone Star College–Kingwood, South Texas College, Texas A&M International University, Palo Alto College, San Antonio College, and St. Philip’s College. Each of these institutions welcomed our collaboration and courageously subjected their innovative programs to rigorous evaluation. We would like to express special thanks to each of the site liaisons — Irma Camacho, Christine Timmerman, Ruben Flores, Michael Chavez, Ruben Izaguirre, Luzelma Canales, Conchita Hickey, Michael Flores, and Abel Gonzales — who devoted countless hours to the students, the bridge programs, and the research study. We also appreciate the assistance of our data liaisons at each of the colleges, who aided our data collection efforts by sending us student data files — Art Gonzalez, Carol Kay, Doug Schirmer, Troy Touchette, Kristina Lopez, Rhonda Johnson, Mecca Salahuddin, Brenda Cole, Jinhao Wang, Wesley Jennings, Siobhan Fleming, Daniel Dean, Frank Segovia, Robert Aguinaga, and Catherine Chapa. We thank the Texas Higher Education Coordinating Board for their partnership and support. In particular, we want to thank David Gardner, Lynette Heckman, Robin Zuniga, Belinda Hernandez, and Judith Loreda for sharing information with us, providing us with student data, and helping us to coordinate meetings with the colleges.

The Texas Developmental Summer Bridge Programs Study is part of the National Center for Postsecondary Research (NCPR), which is generously supported by a grant (R305A060010) from the Institute of Education Sciences, U.S. Department of Education. Katina Stapleton, our program officer, has been a stalwart supporter of this project since its inception. We also received considerable financial support from Houston Endowment that enabled the summer bridge programs to recruit many more students than ever before. We thank George Grainger at Houston Endowment for his endorsement and support of this project.

Additionally, we want to acknowledge the varied and important contributions of members of NCPR who made this report possible. NCPR was designed to be a collaborative research center, and this research project has truly been a team effort. Thomas Bailey, director of NCPR, was instrumental in recruiting institutions, designing the study, and weighing in with useful comments at every critical juncture. Thomas Brock and Robert Ivry helped guide the early design of the Texas Summer Bridge project and provided detailed suggestions on drafts of this report. Marie-Andrée Somers provided invaluable technical advice on the statistical analyses. Clive Belfield devised and conducted the cost study. Kendris Brumfield worked tirelessly with the colleges to support recruitment efforts

and random assignment procedures. Elliot Peterson and Vanessa Martin provided critical support in developing, implementing, and monitoring random assignment procedures. Scott Lloyd, Katherine Hughes, and Michelle Hodara conducted field research at the various college sites. Rachel Hare Bork drafted the executive summary and helped with countless meeting logistics. We are grateful to Katherine Hughes, David Breneman, and Mary Visher for their candid and insightful comments on earlier drafts. M. Joel Voss and Jacob Rooksby helped us to organize chapters, edited text, and created tables for the report. Amy Mazzariello and Doug Slater skillfully edited the report and prepared it for publication.

Finally, we thank the hundreds of students who participated in this study. We hope the findings from this study will be used to improve the programs and institutions that serve them.

The Authors

Executive Summary

Displayed on billboards and license plates alike, “College for All Texans” is the unofficial motto that is promoted statewide to encourage college readiness, participation, and success in Texas. Policymakers, educators, and business leaders agree that Texas must increase rates of college participation and success to preserve the economic vitality of the state and to secure the future well-being of Texas residents. To address the dynamic needs of the growing state population, Texas launched in 2000 an ambitious statewide strategic plan called *Closing the Gaps by 2015*. One of the primary objectives of this plan is to increase enrollment and academic success in Texas colleges and universities.

One component of the Closing the Gaps by 2015 initiative was the creation of developmental summer bridge programs — intensive summer experiences that offer eligible students remedial instruction in math, reading, and/or writing along with an introduction to college. Developmental summer bridge programs aim to reduce or eliminate the need for developmental courses so that more students are prepared for college-level courses in their first semester of college. Programs typically offer intensive, targeted coursework for four to five weeks over the summer, accompanied by tutoring, additional labs, and student support services. The integrated approach used in developmental summer bridge programs is thought to help ease students’ transition into college. But despite the increasing popularity of summer bridge programs across the country, little empirical research on their outcomes or impacts has been conducted.

In 2009, the National Center for Postsecondary Research (NCPR)¹ launched an evaluation of eight developmental summer bridge programs in Texas to assess whether these programs reduce the need for developmental coursework and improve student outcomes in college. The evaluation uses an experimental design to measure the effects of these programs on college enrollment and success. At each college, students who consented to participate in the study were randomly assigned to one of two groups: a program group that was eligible to participate in a developmental summer bridge program and a control group that was eligible to receive their college’s regular services. (Random assignment creates two groups that are similar in both characteristics that can be measured, such as age or academic attainment, and those that cannot be reliably measured, such as motivation. This ensures that any differences in observed outcomes — called *impacts* — between the

¹NCPR is funded by a grant (R305A060010) from the Institute of Education Sciences, U.S. Department of Education. NCPR is a partnership of the Community College Research Center, Teachers College, Columbia University; MDRC; the Curry School of Education at the University of Virginia; and faculty at Harvard University. NCPR conducts studies that measure the effectiveness of programs designed to help students make the transition to college and master the basic skills needed to advance to a degree.

two groups can be attributed with confidence to participation in the developmental summer bridge programs.) Students participated in the developmental summer bridge programs in summer 2009, and their academic progress is being followed through the 2010–2011 academic year. All developmental summer bridge programs had four common features: an accelerated format, academic support, a “college knowledge” component, and the opportunity for participants to receive a \$400 stipend. Eight institutions were selected for inclusion in this study:

- El Paso Community College (El Paso, TX)
- Lone Star College–CyFair (Houston, TX)
- Lone Star College–Kingwood (Houston, TX)
- South Texas College (McAllen, TX)
- Texas A&M International University (Laredo, TX)
- Palo Alto College (San Antonio, TX)
- San Antonio College (San Antonio, TX)
- St. Philip’s College (San Antonio, TX)

Table ES.1 shows the number of students enrolled in the study at each participating college.

Texas Developmental Summer Bridge Programs

Table ES.1

Study Enrollment

Institution	Students in Full Sample
El Paso Community College	273
Lone Star College–CyFair	125
Lone Star College–Kingwood	87
South Texas College	138
Texas A&M International University	211
Palo Alto College	88
San Antonio College	152
St. Philip’s College	258
Total	1,318

This report is the first of two that will be published related to this research. This report presents early impact results from the evaluation and information on how the developmental summer bridge programs were implemented. It focuses on the models used, the range of design features incorporated, how the programs were administered, and how they were perceived by those involved, including college and program leaders, faculty, advisors, and students. A cost study of developmental summer bridge programs is also included. The following are the main findings of this preliminary report:

- All eight programs in the study were implemented with reasonable fidelity to the model framed by the Texas Higher Education Coordinating Board (THECB), but they varied on some key dimensions.
- Program costs averaged about \$1,300 per student but varied widely.
- Program group students did not enroll in either the fall or spring semester at significantly different rates than control group students; enrollment rates were high for both groups.
- There is evidence that the program students were more likely to pass college-level courses in math and writing in the fall semester following the summer programs. The findings also suggest that program students were more likely to attempt higher level reading, writing, and math courses compared with control group students.

Implementation of the Developmental Summer Bridge Program

Of the eight developmental summer bridge programs included in the study, four were course-based, while the other four were freestanding. Course-based programs were essentially standard developmental courses, modified or condensed to create a shorter, more intensive experience. Freestanding programs were designed to provide students the opportunity to advance multiple skill levels by offering basic skills instruction and were not based on a specific course. These programs did not require students to enroll in a summer course and did not award any form of credit. In both course-based and freestanding programs, students received additional academic support, instruction in college knowledge, and a stipend upon successful completion.

- **All eight programs in the study were implemented with reasonable fidelity to the model framed by the THECB, but they varied on some key dimensions.**

The goals of the summer bridge programs were primarily achieved through the teaching and learning that occurred in the classroom and via the various support structures. In most cases, faculty, tutors, and mentors worked together with the goal of facilitating student learning. Bundling an array of services into the programs and actively bringing those services to the students also featured prominently in an underlying theory of change for the summer bridge program model. Each of the core features — accelerated instruction in math, reading, and/or writing; college knowledge; academic support; and the student stipend — functioned together to deliver a coherent learning experience. Though there were many common elements across the eight programs, there were also unique features in each, based on the institutional contexts.

- **Program costs averaged about \$1,300 per student but varied widely.**

Across the eight sites, approximately one third of costs were for staffing and just over one quarter for student resources. Total costs ranged from \$62,633 to \$296,033, which reflects the significant variance across sites in program enrollment, duration, and intensity. Across the eight sites, the average per-student cost ranged from \$840 to \$2,349. The average across all eight sites was \$1,319 — an estimate of the resources needed per student to offer a developmental summer bridge program.² Unsurprisingly, there is no strong evidence of economies of scale in terms of numbers of students enrolled; the high-value stipend is a constant for each student.

Key Impact Findings

Using data obtained from the Texas Higher Education Coordination Board and from the colleges that ran the summer bridge programs, we conducted several analyses of the overall effectiveness of the developmental summer bridge program model, comparing outcomes for program and control group students. Primary indicators of students' academic progress included enrollment in college in the fall of 2009 and progression in developmental and college-level courses in math, reading, and writing.

- **Program group students did not enroll in either the fall or spring semester at significantly different rates than control group students; enrollment rates were high for both groups.**

We found that the programs did not have any impact on fall 2009 registration rates; that is, students in the program group registered for courses in the fall 2009 semester at a

²Some costs may be interpreted as start-up costs and so are unlikely to be needed if the programs are run in subsequent years. If these costs are amortized over three years, then the average cost of the programs is reduced.

rate that is statistically indistinguishable from the registration rate of the control group. This finding contradicts the hypothesis that the summer bridge programs would boost enrollment rates among the program group students.

- **There is evidence that the program students were more likely to pass college-level courses in math and writing in the fall semester following the summer programs. The findings also suggest that program students were more likely to attempt higher level reading, writing, and math courses compared with control group students.**

While students in the program and control groups attempted at least one math course at similar rates, students who participated in a developmental summer bridge program went on to attempt the first college-level math course at a significantly higher rate than students in the control group. A significantly higher percentage of program group students passed this first college-level math course. Program group students were also significantly more likely to attempt a college-level reading course and significantly less likely to attempt the lowest level of developmental reading. Significantly more program group students than control group students attempted at least one writing course and passed their first college-level writing course. In addition, during the 2009–2010 academic year, students in the program group attempted one more college-level credit than students in the control group.

Looking Ahead to the Impact Findings

Overall, the evidence catalogued in this early look at the impact of the developmental summer bridge programs suggests that students' course-taking patterns are trending in the desired direction. In addition, these early results suggest that developmental summer bridge programs might help prepare students to pass introductory college-level math and writing courses. It is important to note that these early findings reflect student academic progress for only one year, and longer follow-up will provide additional evidence. A final report with two years of longitudinal follow-up will be released within the next year. We expect to learn more about students' progression through developmental education, their success in college-level courses, and their persistence into and through the second year of college.

