





# Building on the GED

## Promising Results from a Bridge-to-College Model

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# OVERVIEW

Bridge-to-college programs aim to help people complete high school and enroll in postsecondary education, two milestones that increase access to economic opportunity. These programs help students obtain their high school credentials while encouraging postsecondary transition and success.

Northeast Wisconsin Technical College (NWTC) in Green Bay, Wisconsin, implemented a bridge-to-college program in 2015 to help more students earn their GED credentials and transition to postsecondary education. This GED Bridge program had three components that distinguished it from NWTC's traditional GED class, called GED Prep 2: (1) a NWTC-developed "contextualized" curriculum — one that focused on original texts and materials related to specific careers (to build students' academic skills and raise their awareness of those careers) — in contrast to GED Prep 2 classes that focused on GED test preparation materials; (2) individual support to help students plan their transition to postsecondary education, plus career exploration and transition planning in class; and (3) managed cohort enrollment, meaning that students started each class section together, in contrast to the open enrollment of the GED Prep 2 class where new students could enroll at any time.

This report describes an evaluation of NWTC's GED Bridge program that included impact, implementation, and cost analyses. The impact analysis employed a random assignment design. Eligible applicants were randomly assigned to either the GED Bridge class or the GED Prep 2 class and followed for 18 months. The research team used administrative data to measure differences in class attendance and persistence, GED testing and completion, and enrollment in postsecondary education.

## KEY FINDINGS

- Students in the GED Bridge classes generally received the contextualized curriculum, managed cohort enrollment, and enhanced planning and support for transition to postsecondary education. These experiences differed from those of students in the traditional GED Prep classes, though they differed to varying degrees from semester to semester.
- Students assigned to the GED Bridge program had significantly higher rates of GED class attendance and attended those classes over a longer period.
- GED Bridge group students were more likely to earn GEDs and enroll in college courses. GED Bridge increased the percentage of students who earned GEDs by 11.7 percentage points and increased enrollment into college courses by 8.5 percentage points.
- As implemented at NWTC, the GED Bridge program was more expensive than GED Prep 2 and was not as cost-effective (meaning it did not result in a lower cost per GED credential earned). Its higher costs were in part a result of how NWTC staffed the GED programs and enrolled students, which resulted in more experienced teachers in GED Bridge classes and smaller student-teacher ratios. Students in GED Bridge also stayed in the program longer and received transition support not available to GED Prep 2 students, which increased costs.

This evaluation contributes to a small but growing body of research that suggests that bridge-to-college programs may be effective in improving both GED completion and postsecondary enrollment.



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The Authors



# EXECUTIVE SUMMARY

Most jobs require at least a high school diploma or equivalent, and those that do not are mainly low-wage jobs with few opportunities for advancement.<sup>1</sup> An estimated 10 percent of the U.S. population over age 25 lack a high school credential.<sup>2</sup> People without high school degrees make less on average than those of all other education levels and have the highest unemployment rates.<sup>3</sup>

Given these statistics, many states and cities focus their education policies on increasing high school completion rates, and also postsecondary enrollment and completion rates. One pathway to high school completion is a high school equivalency diploma. The General Educational Development credential, or GED, can open access to postsecondary programs that require a high school diploma. However, alternative diploma holders have not typically made the transition to postsecondary education at the same rate as traditional high school graduates.<sup>4</sup> Extensive research finds that GED holders fare only marginally better in the labor market than people who do not complete high school.<sup>5</sup> Developing better programs to help these adult learners earn high school equivalency credentials and make a successful transition to postsecondary education has the potential to advance this group on pathways to quality jobs — ones that offer living wages, benefits, and opportunities for advancement — and self-sufficiency.

One approach, bridge-to-college programs, seeks to help students complete high school and begin postsecondary enrollment by simultaneously helping them obtain their high school credentials while providing support to encourage transitions to and success in postsecondary education. This report, prepared by MDRC, a nonprofit, nonpartisan research organization, describes an evaluation of one bridge-to-college program at Northeast Wisconsin Technical College (NWTC) in Green Bay, Wisconsin; the program aimed to help students earn their GEDs and continue to postsecondary

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- 1 In 2016, 28 percent of jobs required no educational credential, including retail and custodial jobs. See Bureau of Labor Statistics, “37 Percent of May 2016 Employment in Occupations Typically Requiring Postsecondary Education” (Washington, DC: U.S. Department of Labor, 2017).
  - 2 U.S. Census Bureau, “Educational Attainment in the United States: 2018” (Washington, DC: U.S. Census Bureau, 2019).
  - 3 Elka Torpey, “Data on Display: Measuring the Value of Education” (Washington, DC: U.S. Department of Labor, 2018).
  - 4 Each state has its own requirements for high school equivalency tests. The GED is the most common test, available in 40 states. The High School Equivalency Test (HiSET) is available in 23 states, and the Test Assessing Secondary Completion (TASC) is available in 15 states. The National External Diploma Program is the least common test, available in only 6 states. Brian Smith and C.T. Turner, “GED Program Update: How to Thrive in this New WIOA World” (website: [www.GEDtestingservice.com](http://www.GEDtestingservice.com), 2018); Educational Testing Service, “2017 Annual Statistical Report on the HiSET Exam” (website: <http://hiset.ets.org>, 2017); Test Assessing Secondary Completion, “2015 Annual Statistical Report” (Maple Grove, MN: Data Recognition Corporation, 2016); National External Diploma Program, *The NEDP: Yearly Statistical Report* (San Diego, CA: CASAS, 2016).
  - 5 James Joseph Heckman, John Eric Humphries, and Nicholas S. Mader, “The GED” (Bonn, Germany: IZA Institute of Labor Economics, 2010).

education. The findings from this evaluation contribute to a small but growing body of research that suggests that bridge-to-college programs may be effective in improving both GED completion and postsecondary enrollment rates.

## THE GED BRIDGE TO COLLEGE PROGRAM AT NWTC

NWTC offers adult basic education classes in addition to college and occupational training classes. Beginning in 2015, NWTC developed a new bridge-to-college curriculum for its GED preparation classes, called GED Bridge to College and Careers. The new program was inspired by a similar one at LaGuardia Community College in New York City that had already shown evidence of success.<sup>6</sup> This class had three components that distinguished it from NWTC’s traditional GED classes, called GED Prep 2:

1. The GED Bridge class used a NWTC-developed “contextualized” curriculum — one that focused on original texts and materials related to specific careers (to build students’ academic skills and raise their awareness of those careers) — in contrast to GED Prep 2 classes, which focused on GED test-preparation materials.
2. GED Bridge students received individual support to help them plan their transition to postsecondary education, plus career exploration and transition planning in class, which were not available to GED Prep 2 students.
3. The GED Bridge class implemented managed cohort enrollment, meaning that students started each seven-week class section together, in contrast to the open enrollment of the GED Prep 2 class where new students could enroll at any time.

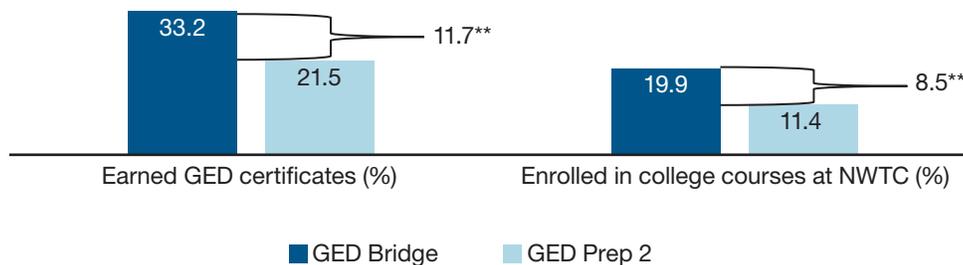
## EVALUATION AND RESULTS

To test the effectiveness of the GED Bridge class, MDRC randomly assigned eligible applicants to NWTC’s GED classes to either the GED Bridge class (the GED Bridge group) or the GED Prep 2 class (the GED Prep 2 group), and followed their results for 18 months. The study tracked rates of GED attainment and enrollment into postsecondary education at NWTC. The GED Bridge group students attended GED classes, earned GED credentials, and enrolled in college classes at significantly higher rates than the GED Prep 2 group: Figure ES.1 shows that 11.7 percentage points more students assigned to the GED Bridge class earned their GEDs (33.2 percent for GED Bridge group students compared with 21.5 percent for GED Prep 2 group students). GED Bridge group students enrolled in college courses at a higher rate as well: 19.9 percent of GED Bridge group students took college courses, compared with 11.4 percent of GED Prep 2 group students — a 75 percent difference.

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6 For results from the LaGuardia study, see Vanessa Martin and Joseph Broadus, *Enhancing GED Instruction to Prepare Students for College and Careers: Early Success in LaGuardia Community College’s Bridge to Health and Business Program* (New York: MDRC, 2013).

**FIGURE ES.1** Percentage of Students Who Earned GED Certificates or Enrolled in College Courses at NWTC



SOURCE: Calculations based on administrative data from NWTC.

NOTES: Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Results in this table are regression-adjusted, controlling for pre-random assignment characteristics.

Rounding may cause slight discrepancies in calculating sums and differences.

The total sample of 340 students includes 169 students in GED Bridge and 171 students in GED Prep 2.

The GED Bridge program’s costs were higher than those of the GED Prep 2 classes. An analysis found that those higher costs could be attributed to lower staff-to-student ratios for GED Bridge, higher instructional costs from using more experienced staff members to teach the GED Bridge classes, staffing for transition support, and longer persistence in the program by GED Bridge group members.

These findings, combined with results from the earlier study at LaGuardia, suggest that elements of these bridge-to-college programs — primarily a contextualized curriculum, cohort enrollment, and focused support for postsecondary transitions — can boost persistence in GED classes, GED completion rates, and postsecondary enrollment rates. These findings now apply to the small share of GED classes that take place on college campuses, but these lessons can also be instructive for program operators seeking to improve the community-based GED preparation classes that are more prevalent. More broadly, the findings in this report align with recent federal and state policies that encourage these approaches, and with other research that has found that integrating basic skills classes with instruction on college and career readiness can improve outcomes for adult learners.<sup>7</sup>

7 See, for example, the Workforce Innovation and Opportunity Act, Public Law 113-128. (U.S. Statutes at Large, 2014); Matthew Zeidenberg, Sung-Woo Cho, and Davis Jenkins, *Washington State’s Integrated Basic Education and Skills Training Program (I-BEST): New Evidence of Effectiveness* (New York: Columbia University, 2010).



## INTRODUCTION

Most jobs require at least a high school diploma or equivalent, and those that do not are mainly low-wage jobs with few opportunities for advancement.<sup>1</sup> Quality jobs with living wages, benefits, and opportunities for advancement typically require people to complete high school. People without high school degrees make less on average than people of all other education levels and have the highest unemployment rates.<sup>2</sup> Most postsecondary education and training programs require high school completion as a criterion for enrollment, and postsecondary education in turn leads to higher earnings.<sup>3</sup> Though high school completion rates are on the rise, an estimated 10 percent of the U.S. population over age 25 lack a high school credential — 11.3 million people between the ages of 25 and 54. Postsecondary education rates are even lower — an estimated 35 percent of 25- to 54-year-olds do not have any postsecondary education.<sup>4</sup>

Given these statistics, many states and cities focus their policies on increasing high school completion rates, and on improving postsecondary enrollment and completion rates. Many reforms aim to improve high school graduation rates by preventing students from dropping out. Other efforts try to reengage young people who have left school. One approach, bridge-to-college programs, targets both high school completion and college enrollment rates by helping students obtain their secondary credentials while simultaneously providing support to encourage postsecondary transition and success. This report focuses on the bridge-to-college program at Northeast Wisconsin Technical College (NWTC) in Green Bay, Wisconsin, aimed at helping those who have left high school and are at least 18.5 years old earn GED certificates and continue to postsecondary education. MDRC, a nonprofit, nonpartisan research organization, conducted an evaluation of NWTC's GED Bridge program. The findings from this evaluation contribute to a small but growing body of research indicating that bridge-to-college programs may be effective in improving GED completion and postsecondary enrollment.

### The GED Test: History, Purpose, and Value

The General Educational Development, or GED, certificate was first introduced in 1942 as an alternative to a high school diploma for people in the military who were deployed overseas before they could finish high school.<sup>5</sup> The underlying principle of the GED and similar tests is that it assesses the same skills that students learn in high school. Therefore, people who pass the test can be considered to have skills similar to those of high school graduates. The GED is the most common alternative

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1. U.S. Department of Labor, Bureau of Labor Statistics (2017) reports that 28 percent of jobs require no educational credential, including retail and custodial jobs.
  2. Torpey (2018).
  3. U.S. Department of Labor, Bureau of Labor Statistics (2019).
  4. U.S. Census Bureau (2019). In 2016, 93 percent of 18- to 24-year-olds had obtained a high school diploma or equivalent (including the GED), compared with 86 percent in 2000. High school graduation rates have also increased. In 2016, 84 percent of high school students graduated within four years, compared with 79 percent in 2010. See U.S. Department of Education, National Center for Education Statistics (2017, 2019); Stetser and Stillwell (2014).
  5. Tyler (2005).

to a high school diploma, though other tests have gained popularity in recent years.<sup>6</sup> The GED and similar credentials provide a crucial option for high school completion outside of a traditional high school diploma.

GED recipients are diverse: Some people who pursue a GED or its alternatives are young and recently left school but still seek a path to a high school credential. Other people may have left high school decades ago and are seeking a GED to be able to advance in the labor market or are pursuing the credential for personal reasons. Demographic information reported by the GED Testing Service in 2017 showed that the average age of a GED tester was 26, and 45 percent had completed eleventh grade or higher. Nearly a third were looking for work, and 40 percent were working full or part time.<sup>7</sup>

The GED test is in its fifth version since its introduction in 1942. The latest revision came in 2014 in an effort to increase the rigor of the test as most states strengthened high school graduation standards under the 2010 federal Common Core. (The Common Core sets standards to define what knowledge and skills students should have mastered by graduation in order to succeed in entry-level careers and postsecondary training programs.)<sup>8</sup> Research before 2014 found that GED recipients did not have labor market outcomes as good as those of high school graduates.<sup>9</sup> The test redesign was intended to address these criticisms by aligning the GED with Common Core standards and testing students on the skills and knowledge required for them to make the transition to postsecondary education or training, and ultimately to careers.<sup>10</sup> Pass rates fell in the first year after the new test was implemented in 2014, but have since rebounded.<sup>11</sup>

Nationwide, fewer students are taking the GED test than have in the past. The number of GED certificates awarded fell by nearly half between 2012 and 2017 (from 465,095 in 2012 to 237,426 in 2017).<sup>12</sup> In Wisconsin, the number of GED certificates awarded fell by 60 percent, from 7,100 in 2012 to 2,900 in 2016.<sup>13</sup> Since GED pass rates have rebounded, they do not explain the decline in the number of GED certificates awarded. The decline may be partly explained by the rise of other tests

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6. Other tests include the High School Equivalency Test (HiSET), available in 23 states; the Test Assessing Secondary Completion (TASC), available in 15 states; and the National External Diploma Program, available in 6 states. See Smith and Turner (2018); Educational Testing Service (2017); Test Assessing Secondary Completion (2015); National External Diploma Program (2016).
  7. Smith and Turner (2018).
  8. Common Core State Standards Initiative (2020).
  9. Cameron and Heckman (1993); Heckman, Humphries, and Mader (2010).
  10. Hoffman, Wine, and McKinney (2013). The main differences between the pre-2014 test and the current test are: (1) The content of the new test is aligned with the Common Core and focused on skills related to college and career readiness. (2) The new test includes constructed-response questions aimed at measuring complex thinking and depth of knowledge, rather than full multiple-choice questions. (3) The new test is computer-based rather than pen and paper. (4) The revised test focuses more on critical and analytical thinking skills, while the prior test focused on reading fluency and comprehension.
  11. The U.S. Department of Education, Office of Career, Technical, and Adult Education (2019) shows pass rates dipping in program year 2014-2015 for high school completion supported by Title II of the Workforce Innovation and Opportunity Act, but rebounding in program year 2015-2016.
  12. These calculations are based on data in Gewertz (2018).
  13. Hillard (2018).

offering more options for high school completion.<sup>14</sup> Rising high school graduation rates may also account for part of the decline, as schools move to improve graduation rates and offer new pathways such as alternative schools for students to complete traditional diplomas, lowering the number of students needing the GED.

The current GED is made up of four subject tests (mathematical reasoning, reasoning through language arts, social studies, and science), which students take separately at their own pace on a computer. The cost to take the test varies by state, and there are often financial aid options available. Eligibility to take the GED also varies from state to state and often includes minimum age requirements to discourage high school students from pursuing a GED instead of a traditional diploma. Prospective test takers can prepare for the exam in a variety of ways, including self-study using GED workbooks, online preparation programs, and classes. The range of classes includes online instruction, drop-in classes offered by community-based organizations, libraries and churches, and classes offered through school districts and community colleges. Many free GED test preparation classes are available, but these programs typically operate on small budgets. Teacher qualifications in these programs run the gamut, from community volunteers to dedicated full-time faculty; program structures range from online programs to daily in-person classes, as do curricula, from GED test worksheets to college-preparation content.

## Transitions to Postsecondary Education for GED Recipients

Improving the share of GED students who persist in GED programs and earn the credential is an important goal on its own, as this milestone can open the door to jobs that are only available to people with high school credentials. Still, today's labor market demands postsecondary training to gain access to most quality jobs. But research shows that GED recipients enter and persist in postsecondary education at lower rates than traditional high school graduates.<sup>15</sup> Research before the 2014 test change found that while 73 percent of high school diploma recipients completed some postsecondary education, only 43 percent of GED holders did.<sup>16</sup> Independent research is not available to show whether the revised 2014 GED test has changed these trends.

Schools, colleges, and governments continue to work on improving the rate at which students in adult education make the transition to postsecondary education.<sup>17</sup> The results include new models focused on integrating adult basic skills programs with workforce and postsecondary preparation training to put students on career pathways that lead to success in the labor market. Bridge-to-college programs combine academic preparation for college-level work with various forms of support to encourage

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14. The rise of other tests cannot explain all of the decline in GED certificates, however, since a nationwide analysis of high school equivalency attainment found that the number of certificates awarded from TASC, GED, and HiSET, among other tests, fell by more than 40 percent during the period between 2012 and 2016. Hillard (2018).

15. Tyler and Lofstrom (2010).

16. Ewert (2012).

17. Zachry Rutschow, Beal, and Johnson (2019). Adult education includes basic skills education for those below ninth-grade proficiency, English language proficiency, high school completion, and college and workforce readiness programs.

students to make the transition to college, including career planning and assistance navigating college application, financial aid, and registration processes.<sup>18</sup> Not all bridge-to-college programs focus on the subgroup of people seeking GEDs — they are also in high schools and programs for people who already have their high school credentials and are exploring the next step in their education.

State and college approaches to improving adult education also include career pathways and contextualized instruction. Career pathways approaches identify occupations where the supply of qualified applicants does not meet the labor market’s demand, and tailor education and training programs aimed at low-income, low-skill populations to try to fill those gaps. Contextualized instruction refers to the instructional strategy that grounds academic or skill-building concepts in real-world examples and materials (for example, teaching math concepts by discussing how they are applied in a health care setting).<sup>19</sup> The reauthorization of the Workforce Innovation and Opportunity Act in 2015 emphasized such models.<sup>20</sup>

To date, there have been only a few evaluations of the effectiveness of GED bridge-to-college programs.<sup>21</sup> MDRC’s earlier evaluation of a bridge-to-college program for GED students at New York City’s LaGuardia Community College found that compared with its traditional GED class, its GED Bridge program increased the share of students passing the GED tests by 30 percentage points and boosted college enrollment rates by 17 percentage points.<sup>22</sup> The GED Bridge class provided a career-oriented and contextualized curriculum and transition counseling, and compared with the traditional GED class offered 80 percent more instructional hours. LaGuardia’s success, in part, is responsible for other colleges developing their own models, such as the GED Bridge to College and Careers Program at NWTC that is the focus of this report.

## GED PROGRAMS AT NWTC AND THIS EVALUATION

### GED Programs at NWTC

NWTC is a community college located in Green Bay, Wisconsin, the state’s third-largest city at just over 100,000 residents. The college offers more than 200 degree and certificate programs. Like all community colleges in Wisconsin, NWTC offers adult basic skills programs tuition-free. Before 2013, the college offered GED preparation in an open lab environment — students could come in during lab hours and receive individual support from instructors. Students worked at their own pace. Around the same time as the national GED test changes were implemented, NWTC started making changes to its GED preparation program. NWTC senior administrators said that the changes were

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18. U.S. Department of Education, Institute of Education Sciences (2016).

19. Washington State’s Integrated Basic Education and Skill Training (I-BEST) program is one such approach with promising results that has been replicated across the country. See Zeidenberg, Cho, and Jenkins (2010); Martinson, Cho, Gardiner, and Glosser (2018).

20. The Workforce Innovation and Opportunity Act is the main federal law dealing with how the public workforce system helps job seekers gain access to education, training, and employment.

21. Zachry Rutschow and Cray-Ross (2014).

22. Martin and Broadus (2013).

precipitated by the college's interest in incorporating the most current research about best practices in adult education. The biggest change shifted GED students from a drop-in class structure to formal classes that met on a weekly schedule, which better mirrors the college experience.

The new structure, called GED Prep, split students into two tracks based on their scores on the Tests of Adult Basic Education (TABE).<sup>23</sup> Students who tested below a ninth-grade level in reading began with GED Prep 1, while those who tested at ninth-grade level or above in reading were placed into GED Prep 2.<sup>24</sup> The curriculum was separated by subject, meaning that instructors would teach one subject at a time.

The GED Prep classes still had open enrollment; students could start attending classes as soon as they registered and did not have to wait for a new semester or class section to begin. Many adult education classes use open enrollment in recognition of the barriers students face to attending class regularly, but open enrollment also poses challenges to delivering curricula that build sequentially over the days, weeks, and months. NWTC started out trying to implement closed courses with the GED Prep classes, but found it was losing students who wanted to enroll immediately and not wait for multiple weeks before they could start class.

Shortly after NWTC made the transition from an open lab to the GED Prep classes, it connected with LaGuardia Community College's GED Bridge to Health and Business program and explored incorporating lessons on contextualized instruction from LaGuardia into its GED Prep classes. These early discussions evolved into the creation of the GED Bridge to College and Careers class at NWTC. NWTC's GED Bridge class draws on the LaGuardia program's distinctive features, particularly contextualized instruction and support for transitions to postsecondary education. Like NWTC's Prep 2 class, its GED Bridge targeted students who were at a ninth-grade level or above.<sup>25</sup>

The success of LaGuardia's GED Bridge program and NWTC's desire to replicate aspects of that model in its GED classes offered the opportunity to see whether the GED Bridge approach could have similar success in a different location, with a different student population. NWTC had previously connected with staff members from MDRC at a conference, and this evaluation developed from those discussions. NWTC planned to continue to offer GED Prep 2 classes alongside GED Bridge classes, since it did not have the funding to replace all GED Prep 2 classes with GED Bridge classes immediately. As a result, NWTC had a unique chance to test the impact of GED Bridge compared with GED Prep 2. NWTC began implementing GED Bridge in 2015 and the study began at the same time.

Table 1 compares NWTC's GED Bridge and GED Prep 2 classes. Students had access to the same number of hours of classes: in person, twice per week for four hours. Because students struggled

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23. The Tests of Adult Basic Education are widely used tests that assess the skills and knowledge of adult learners in reading, mathematics, writing, and other important areas. See Tests of Adult Basic Education (2020).

24. The cutoff was changed to sixth-grade level in 2017 due to low enrollment overall in NWTC's GED programs.

25. In comparison, LaGuardia's GED Bridge class required a seventh-grade reading level or above. See Martin and Broadus (2013).

**TABLE 1** Comparison of GED Bridge and GED Prep 2 Classes

| Shared Elements        |  |  |
|------------------------|--|--|
| COMPONENT              | GED BRIDGE AND GED PREP 2  |  |
| Hours of instruction   | 120 hours per semester, plus access to a weekly math seminar   |  |
| Connections to college | Classes located on campus; access to college support services and social activities  |  |
| Scholarships           | Financial assistance to take GED tests   |  |
| Differences            |  |  |
| COMPONENT              | GED BRIDGE   | GED PREP 2   |
| Instructors            | Full-time faculty  | Full-time and part-time faculty  |
| Curriculum             | Contextualized, career-focused curriculum using original texts   | GED test preparation materials   |
| Transition support     | Individual support for transition planning, plus career exploration and transition planning in class and during Transitions Week | No formal support for transitions, though students have access to instructor and campus support services if they seek them out |
| Enrollment             | Managed cohort enrollment, where students begin seven-week class sections at the same time                                       | Open entry   |
| Attendance             | Attendance monitoring and outreach to students who stop attending  | No formal support for attendance   |

SOURCE: Interviews with NWTC staff members.

with the math portion of the GED the most, NWTC also introduced optional weekly math seminars for students in both programs, taught by a faculty instructor. Both classes offered some exposure to the postsecondary experience: Classes took place on the NWTC campus and instructors provided syllabi to mimic what students would experience in a college class. While GED Bridge classes were staffed entirely by full-time faculty instructors, GED Prep 2 classes were taught by a combination of full-time faculty instructors and adjunct (part-time) instructors, depending on the semester.

The GED Bridge program used an NWTC-developed, contextualized, career-focused curriculum, contrasting with GED Prep 2 classes focused mainly on GED test-preparation materials. The contextualized curriculum is designed to accomplish two primary goals. The first is to help students develop the basic academic competencies required to pass the GED tests, using a curriculum focused on career sectors and incorporating materials from a variety of sources. These sources include popular news media, textbooks, nonfiction books, and trade publications. The second goal is helping students

successfully make the transition to postsecondary education by teaching them college success skills, developing their awareness of career options, and helping them create a plan for this transition.

NWTC developed five seven-week sections of the curriculum during the study period (Trades 1 and 2, Health 1 and 2, and Business). Multiple sections were developed so that students, who typically need to participate for several sections before they can pass the GED tests, would not have to repeat content. Inspired by LaGuardia's use of excerpts from a text throughout the semester, each section of the curriculum includes a central text or idea that serves as a foundation for putting the GED test concepts into context and helping students tie them together. For the health section, the program used *The Immortal Life of Henrietta Lacks* to bring together concepts like DNA, epidemiology, and ethics in research.<sup>26</sup> For the trades unit, it used *The Rise of the Rocket Girls* to discuss the role of women in the workplace and space exploration.<sup>27</sup> Each section was designed with a GED subject in mind to encourage students to attempt the GED subject test relevant to that sector. For example, the trades sections concentrate on math and the health sections concentrate on science. All sections incorporate the principles of reasoning through language arts.

As mentioned above, the GED Bridge classes also aimed to prepare students for postsecondary education and support their transition to college after they earned the GED credential. To do so, the program provided support from a transitions counselor, who monitored students' progress and attendance and offered individual planning for each student's transition to postsecondary instruction. The counselor also organized a "Transitions Week" each semester, where students could learn about NWTC's postsecondary offerings and how to enroll.

Finally, managed cohort enrollment was central to the GED Bridge model. That is, NWTC sought to have groups of students enter the GED Bridge class at the same time, at the start of one of the seven-week sections. This enrollment structure had several advantages. Students in adult education classes often start and leave courses at different points, and are working at different levels. These differences hinder the type of direct, group-based instruction that the contextualized curriculum demands. Additionally, the managed cohorts offered students a chance to build a group bond and offer each other support. In contrast, GED Prep 2 students could start their classes right away, with the first hour reserved for independent study so instructors had time to orient new students.

## The Evaluation of GED Bridge at NWTC

MDRC used a random assignment design to evaluate the GED Bridge program at NWTC. Students deemed eligible for GED Bridge were randomly assigned to be allowed to enroll in GED Bridge or to have access to GED Prep 2. The research questions of the evaluation were:

- How were the services received by the GED Bridge group different from the services received by the GED Prep 2 group?

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26. Skloot (2010).

27. Holt (2016).

- Were students who had access to the GED Bridge program more likely to pass the GED tests and enroll in postsecondary programs at NWTC?
- What were the costs of the GED Bridge program?

Data came from a number of sources.

- MDRC collected demographic information from the 340 participants who enrolled in the study from January 2015 through January 2018.
- MDRC gathered information on how the GED Bridge and GED Prep 2 programs were delivered to students through interviews with staff members and students during annual visits to NWTC in 2016, 2017, and 2018.
- NWTC provided GED class attendance data for study participants for each semester from spring 2015 through spring 2018, as well as a log of contacts the transitions counselor had with GED Bridge students.
- NWTC provided data on GED test attempts and GED receipt for the study sample for 18 months following random assignment.
- NWTC provided data on enrollment and credit receipt in postsecondary courses for the study sample in the 18 months following random assignment.
- NWTC provided cost data, including faculty and staff hourly rates, an hourly rate for facilities use, a negotiated indirect cost rate agreement, and overhead rates that included rates for the Federal Insurance Contributions Act, Medicare, and the Wisconsin Retirement System.

## Enrollment into GED Classes and Participant Characteristics

To be eligible to take the GED tests in Wisconsin, prospective test takers must be 18.5 years old or older and complete a state-required orientation session. NWTC is the only location in the Green Bay area that offers this orientation. Anyone who wants to take GED classes at NWTC must go through the counseling session, which lasts eight hours over two days. This session assesses prospective test takers' reading levels and career interests and provides information on options for completing high school. At the end, participants receive a written plan outlining subsequent steps for completing high school and embarking on a career path.<sup>28</sup>

During the enrollment period for this study, students who obtained a TABE reading score of ninth-grade level or higher during the orientation session attended a third orientation day to learn about

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28. Taylor (2019b).

GED Bridge and GED Prep 2 classes and the study.<sup>29</sup> Students who agreed to join the study were then randomly assigned to be offered either GED Bridge (the GED Bridge group) or GED Prep 2 (the GED Prep 2 group). Those who declined to participate in the study could enroll in GED Prep 2 directly.

The enrollment period spanned from January 2015 through January 2018; it was extended several times because the study enrolled students at a lower rate than planned. Though NWTC is the main provider for GED classes in Green Bay, the region's relatively small population and sinking unemployment rate during the study period (as the economy improved after the Great Recession of 2008) meant that total GED program enrollment remained low.<sup>30</sup> Additionally, not all students who enrolled in NWTC's GED classes were eligible for the study. GED students were not eligible for the program if they were in some of the other NWTC high school completion programs or had enrolled in GED Prep 2 classes before. Such students were all placed directly into GED Prep 2. As a result, GED Prep 2 classes had more students enrolled than GED Bridge classes. In all, 340 students enrolled in the study; about half were randomly assigned to GED Bridge and half to GED Prep 2.

Table 2 shows some characteristics of students enrolled in the study. Most were in their early 20s. About half had dependent children. Most were working at the time of enrollment. The TABE scores reflect the eligibility cutoffs for the GED Bridge and GED Prep 2 classes — prospective students who scored under ninth-grade level on the TABE were sent to GED Prep 1, which focused on basic skills, and were not enrolled in the study. In 2017, NWTC experienced a decline in enrollment in its GED classes and lowered the threshold for the study to sixth-grade level to boost enrollment. Average math scores were lower than reading scores, which aligns with what instructors said about where students struggled. Nearly 40 percent of study participants had taken a GED course before, most at NWTC. Participants with prior GED class experience may have been in GED Prep 1 or may have attended classes when NWTC offered them in the open lab setting.

## PROGRAM IMPLEMENTATION

Since the evaluation coincided with the launch of the GED Bridge program at NWTC, it was expected that implementation would change over time and might take a while to reach a “steady state.” This phenomenon is common with the launch of any new initiative or program. Researchers assessed the implementation of the GED Bridge program and how it changed over time by doing in-person interviews with administrators, instructors, and students; observing classrooms; and holding regular teleconference meetings with the college to get updates on program operations. The following sections describe the implementation of GED Bridge's distinctive components observed during the study period and compare the experiences of GED Bridge students with those of GED Prep 2

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29. Those who were below a ninth-grade level, or later a sixth-grade level, were offered enrollment into GED Prep 1. After a student had improved TABE scores to the minimum requirements for GED Bridge or GED Prep 2, that student would then be offered the opportunity to join the study and would go through random assignment.

30. Green Bay's unemployment rate dropped from 5.1 percent to 3.2 percent during the study enrollment period. Green Bay's population was estimated at 104,879 in 2018. College enrollment rates dropped by 2 million students nationwide between 2011 and 2019. See U.S. Department of Labor (2020); U.S. Census Bureau (2020); and National Student Clearinghouse (2019).

**TABLE 2** Demographics of the Full Study Sample

| DEMOGRAPHICS                    | PERCENTAGE OF THE SAMPLE | EDUCATIONAL BACKGROUND           | PERCENTAGE OF THE SAMPLE |
|---------------------------------|--------------------------|----------------------------------|--------------------------|
| Female                          | 50.7                     | Highest grade completed          |                          |
|                                 |                          | 8th or less                      | 7.1                      |
| Age                             |                          | 9th                              | 10.1                     |
| 18-25                           | 60.0                     | 10th                             | 23.2                     |
| 26-35                           | 22.9                     | 11th                             | 56.0                     |
| 36+                             | 17.1                     | 12th                             | 3.6                      |
| Race/ethnicity <sup>a</sup>     |                          | TABE reading score               |                          |
| Hispanic                        | 27.0                     | 5th or 6th grade                 | 10.3                     |
| White, non-Hispanic             | 47.8                     | 7th or 8th grade                 | 20.3                     |
| Black, non-Hispanic             | 12.8                     | 9th grade                        | 12.7                     |
| Asian or Pacific Islander       | 1.5                      | 10th grade                       | 10.3                     |
| Other                           | 11.0                     | 11th grade                       | 13.3                     |
|                                 |                          | 12th grade                       | 33.0                     |
| Has children under 19 years old | 52.7                     |                                  |                          |
|                                 |                          | TABE math score                  |                          |
| Annual household income         |                          | 5th or 6th grade                 | 20.8                     |
| Less than \$25,000              | 54.8                     | 7th or 8th grade                 | 37.2                     |
| \$25,000 to \$39,999            | 25.5                     | 9th grade                        | 9.7                      |
| \$40,000 to \$54,999            | 10.5                     | 10th grade                       | 13.9                     |
| \$55,000 or more                | 9.2                      | 11th grade                       | 3.0                      |
|                                 |                          | 12th grade                       | 15.4                     |
| Employment status               |                          |                                  |                          |
| Currently working               | 60.1                     | Has ever taken the GED           | 9.8                      |
| Not currently working           | 34.0                     |                                  |                          |
| Never employed                  | 5.9                      | Has ever taken a GED prep course | 40.2                     |
| Sample size                     |                          |                                  | 340                      |

SOURCES: MDRC calculations based on baseline survey data and enrollment data from NWTTC.

NOTES: Rounding may cause slight discrepancies in calculating sums and differences.

Sample sizes may vary because of missing values.

<sup>a</sup>Race/ethnicity categories are mutually exclusive.

students. Changes in the implementation of the GED Bridge program occurred because of staff changes, enrollment trends, changes in the availability of resources, and adaptations by the college in response to its on-the-ground experience. Though there were bigger contrasts between the two programs in some semesters than in others due to start-up activities and staffing, overall, students in the GED Bridge classes experienced a contextualized and career-focused curriculum, managed cohort enrollment, and enhanced planning and support for transition, while students in the GED Prep 2 program received a more standard GED preparation experience.

## A Contextualized, Career-Focused GED Curriculum

Interviews with instructors and students and observations of classes confirmed that GED Bridge delivered a curriculum distinctly different from that delivered in GED Prep 2. GED Bridge instructors facilitated lessons through independent reading, group discussion, computer practice, and small group work. The curriculum used original source materials and focused less on the standard GED preparation materials in use in the GED Prep 2 classes. Instructors said they refined the curriculum each time it was taught to reflect what worked and what did not. When enrollment was low in 2017 and students with lower TABE reading scores were allowed to enroll in GED Bridge, the instructors started adapting the curriculum to meet the needs of these students, for example by doing more direct vocabulary building.

A focus group of GED Bridge students described the contextualized curriculum positively. One student said: “The way [the instructor] tied things together made me remember things better.” Another said: “I already passed my science test, but it was helping me for my language arts.” One student noted that during group work, the instructor adjusted activities to students’ different academic proficiency levels. The GED Bridge instructors said students were sometimes skeptical of the contextualized approach, as they may have begun the course believing they had to focus on materials in workbooks designed to help them earn a GED. Students’ concerns were reduced by instructors giving them direct explanations of the benefits of the contextualized curriculum.

The contextualized, career-focused curriculum of GED Bridge differed sharply from the GED Prep 2 curriculum. In GED Prep 2 classes, subjects were broken into blocks where a lesson would be taught in science and then the class would move into another subject, such as social studies. The blocks were not integrated. Each GED Prep 2 instructor also created his or her own lesson plans, so classes varied depending on the instructor’s approach. GED Prep 2 instructors said they struggled with planning a semester-long course because open enrollment meant students began the class at different points. Teachers had adapted by devoting the first hour of class to independent work, so they could orient new students. GED Prep 2 instructors said it was difficult to integrate new students in math topics where concepts build on each other; they found it easier in other subjects where the focus changed from week to week. Like GED Bridge students, students in GED Prep 2 expressed positive feelings about their classes. Many said that being able to put in the time to attend class and study was essential to passing the GED tests. “If you come to class regularly you have the chance of taking the GED and passing the test,” said one student in a focus group. “That’s what motivated me, because I stayed in class and kept up with it and I passed three tests, so I’m about to move on.”

## College and Career Transition Services

Transition services for the GED Bridge group took a few semesters to solidify, so the experiences of early GED Bridge students differed from those of students who enrolled later. In the beginning, the GED Bridge transitions counselor was employed part time but was moved to full-time employment during the second semester to support transition and recruitment activities more fully. The counselor’s primary duty was to support students in transitioning to postsecondary programs after they earned their GEDs, by running in-class transition activities and providing individual support. One-third of this staff person’s time was also dedicated to recruiting for all of NWTC’s GED pro-

grams and providing the study orientation at those initial sessions. The counselor developed and facilitated “Transitions Week” activities between sections of the GED Bridge curriculum. During these two-day sessions, students could tour the campus, learn about the support available, get a financial aid overview, and sit in on classes in fields of interest.

The transitions counselor also provided one-on-one support to students. She held drop-in office hours for students and offered attendance support by following up with students who stopped attending classes. When a student was close to completing all four GED tests, the transitions counselor would schedule a meeting to discuss next steps for applying to postsecondary programs. She would then provide a “warm handoff” to NWTC’s Admissions Department, walking her students to the office and providing directions to the admissions staff about what to accomplish with GED Bridge students: program application, financial aid application, and making appointments with advisers. NWTC waived its \$30 application fee for GED Bridge students.

Table 3 shows receipt of transitions services by GED Bridge students. On average, students received 2 in-person contacts plus 16 other types of contacts, which included text messages and email. The transitions counselor continued to make contact with participants even after they finished their tests, averaging slightly more than 3 contacts per study participant after they earned their GEDs.

GED Bridge students described the transitions counselor as a visible and supportive part of the GED Bridge program: “She is a big player and key in all of this, she is understanding and flexible. She is checking in on us,” said one student in a focus group. Students said Transitions Week provided helpful information, directing them to specific resources for answering transition questions. They said the instructor reiterated and reinforced messages about postsecondary transitions in every GED Bridge class. The instructors served as additional resources for students as they planned their transitions to postsecondary study. While many students aspired to postsecondary education, some expressed that their primary objective was earning a GED first.

GED Prep 2 students and instructors described a less formal, student-led approach to planning for postsecondary transitions. Instructors reported that they talked with students individually about their career plans as they got close to completing the

**TABLE 3** Receipt of Transition Services by GED Bridge Group Students During the 18-Month Follow-Up Period

| CHARACTERISTIC                                |      |
|---|------|
| Ever received transition services (%)         | 98.2 |
| Number of contacts with transitions counselor | 19.3 |
| In person                                     | 2.0  |
| Phone   | 2.6  |
| Email   | 1.3  |
| Text  | 9.1  |
| Mailchimp                                     | 4.3  |
| Among those who earned a GED (68 students)    |      |
| Any contact after earning GED (%)             | 72.1 |
| Number of contacts after earning GED          | 3.1  |
| Sample size                                   | 169  |

SOURCES: MDRC calculations based on data from the transition counselor’s contact log and GED test data from NWTC.

GED tests. GED Prep 2 students described receiving ad hoc support from instructors in planning for transition to postsecondary courses, and they said those discussions were not part of their group classes.

## Managed Cohort Enrollment

As noted earlier, NWTC had already attempted — before GED Bridge and without success — to implement cohort enrollment for the GED Prep classes. Since the GED Bridge contextualized, career-focused curriculum relied on content that built on itself over the seven-week sections, it was vital to have managed cohort enrollment for the program. Instructors said cohort enrollment was central to implementing the contextualized curriculum. GED Bridge students reported feeling like they belonged to a group whose members supported each other in making progress toward their goals.

To balance the competing interests of trying to create managed cohorts with students' need to enroll in classes immediately, NWTC implemented a “booster” class, which allowed students assigned to the GED Bridge group midway through a section to begin attending class immediately. A GED Bridge instructor taught the booster class and focused on getting students ready to enter the next section of the GED Bridge class. Booster class activities included completing GED practice tests and identifying areas where the newly enrolled students needed to focus. Students assigned to the GED Prep 2 group could start their classes right away. However, NWTC was not always able to implement the cohort approach as intended. NWTC first implemented it in the second semester of the GED Bridge program and had to suspend it for a semester in 2017 when enrollment lagged.

## Engagement and Attendance in GED Classes

Adult education programs can struggle with consistent attendance, as adult students balance the demands of work and families. The GED instructors at NWTC tracked student attendance in their classes. Instructors in both GED Bridge and GED Prep 2 reached out to students when they stopped attending classes, but the GED Bridge students would also receive calls from the transitions counselor.

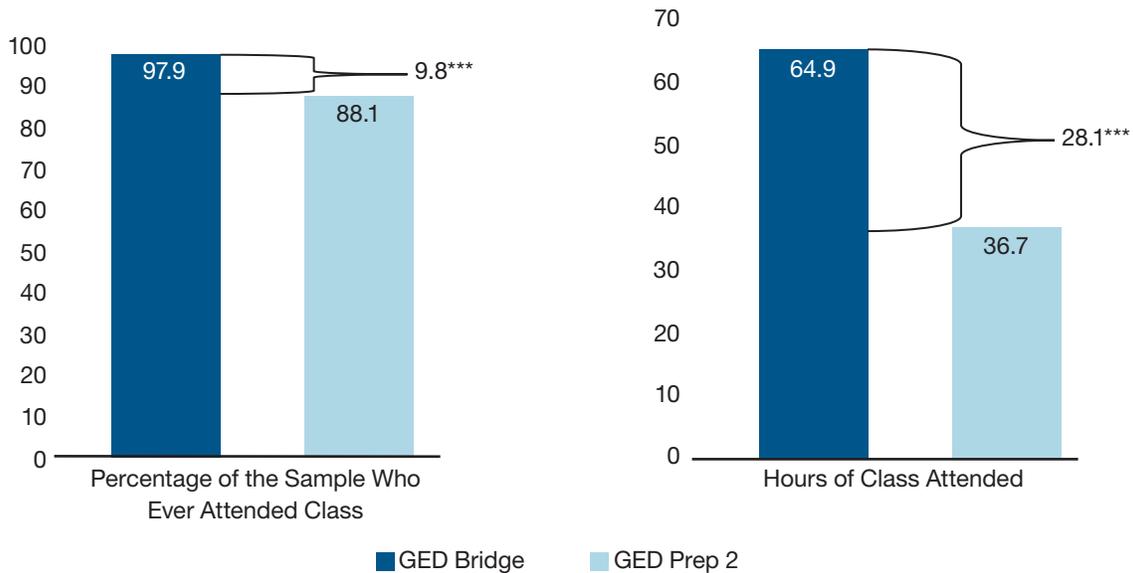
Figure 1 shows that GED Bridge group students were more likely to attend a class at least once. (Ninety-eight percent attended at least once, compared with 88 percent of the GED Prep 2 group.) GED Bridge group students also attended more hours of class (an average of 65 hours compared with 37 hours) and days of class (an average of 18 days compared with 12 days).<sup>31</sup> Students in the GED Bridge group also attended class for twice as long as students in the GED Prep 2 group — 16 weeks compared with 8 weeks.<sup>32</sup> The transitions counselor followed up with all students assigned to the GED Bridge group if they did not show up to class, which probably contributed to differences in attendance between the two groups. Additionally, GED Bridge students and instructors said the managed cohort enrollment helped to build bonds among students, and peer influence could have helped GED Bridge group students show up to class more often.

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31. Spring and fall semesters offered 120 hours of instruction, summer semester offered 88 hours of instruction, and a January term offered 24 hours of instruction.

32. Among those who attended a GED class, GED Bridge students attended 67 hours of class compared with 42 hours for the GED Prep 2 students.

**FIGURE 1** GED Class Attendance After 18 Months of Enrollment



SOURCE: MDRC calculations based on GED attendance data from NWTC.

NOTES: Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent. Results in this table are regression-adjusted, controlling for pre-random assignment characteristics. Rounding may cause slight discrepancies in calculating sums and differences.

## PROGRAM IMPACTS

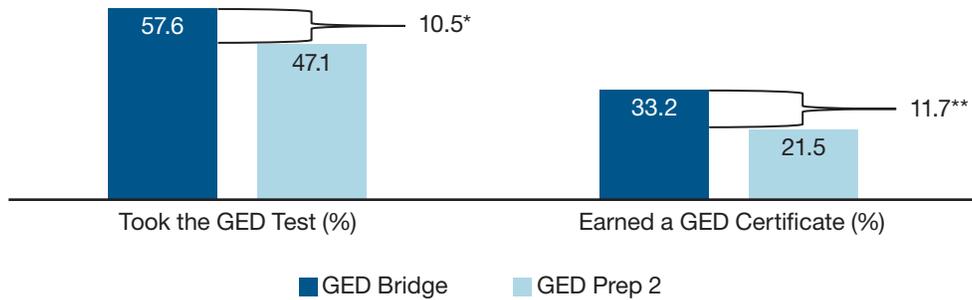
The evaluation sought to determine whether the GED Bridge program increased rates of GED completion and postsecondary enrollment, compared with the traditional GED preparation approach of the GED Prep 2 class. The impact analysis includes all students enrolled at all times during the study period, though as described above, not all aspects of the GED Bridge class were implemented consistently every semester.

Compared with students in GED Prep 2, GED Bridge students took the GED tests and earned GED certificates at higher rates (see Figure 2). GED Bridge increased the share of students who attempted at least one GED exam by 10.5 percentage points, and the share of students who took and completed all four tests and earned their GED certificates by 11.7 percentage points.<sup>33</sup>

As is often the case with GED classes, there is no “course completion” for either the GED Bridge or GED Prep 2 class — students are enrolled until they finish their GEDs or stop going to the class. The classes did not prescribe a specific timetable for taking the GED exams; students were instead

33. Starting in 2016, GED test takers in Wisconsin were also required to pass a 100-question civics test before they could complete the GED. See Taylor (2019a). Taking the civics test is not included in the calculations for taking a GED test. NWTC staff members said that the civics test requirement did not prove to be a barrier that kept students from earning GEDs.

**FIGURE 2** Impacts on GED Testing and Receipt 18 Months After Random Assignment



SOURCES: MDRC calculations based on GED test data and transcript data from NWTTC.

NOTES: Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Results in this table are regression-adjusted, controlling for pre-random assignment characteristics.

Rounding may cause slight discrepancies in calculating sums and differences.

encouraged by instructors to take tests when they were ready. Instructors in both classes used the GED Ready practice tests to assess preparedness.<sup>34</sup>

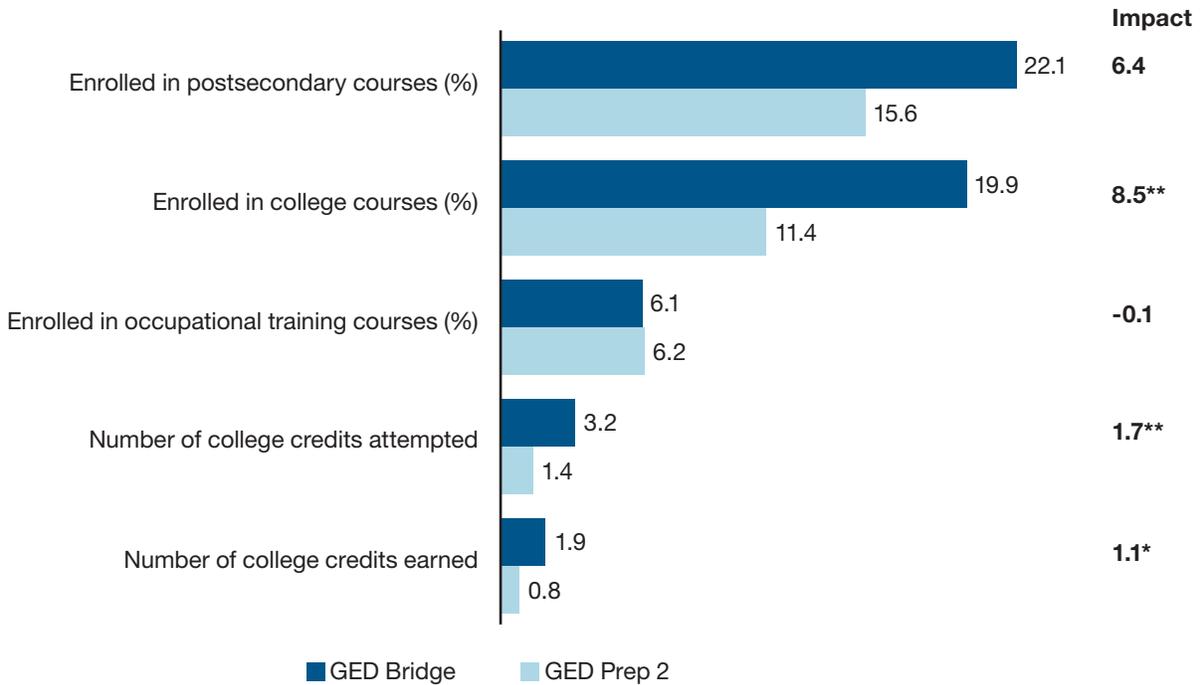
The study design does not allow researchers to determine what aspects of the program led GED Bridge students to earn GED certificates at higher rates, though the data and curriculum design suggest some possible factors contributing to their higher performance. As shown in the attendance data above, GED Bridge group students attended classes for twice as many weeks as students in the GED Prep 2 group. Persisting in the class could contribute to improving pass rates for students. Among those who earned a GED — a nonexperimental measure since it is calculated only among those in the sample who earned a GED — the average time from enrollment to earning a GED was 7.3 months for the GED Bridge group and 7.0 months for the GED Prep 2 group. Thus, though GED Bridge students in the study took slightly longer on average to earn GEDs, more of them persisted toward this milestone than GED Prep 2 students. Improving persistence is especially important in helping adult learners make progress, as these students attend classes voluntarily and typically have more demands on their time than school-age students.<sup>35</sup> Additionally, the curriculum for the GED Bridge class was intended to build students’ higher-level thinking, helping them understand concepts and skills rather than relying on memorization, which could have also contributed to higher pass rates among GED Bridge participants.

The second principal goal of the GED Bridge program was improving the percentage of students who made the transition to postsecondary education. Figure 3 shows impacts on NWTTC postsecondary

34. GED Ready practice tests, offered by the GED Testing Service, are official practice tests to assess preparedness that are designed to mimic the real test.

35. Comings, Parrella, and Soricone (1999).

**FIGURE 3** Impacts on Postsecondary Activities at NWTC  
18 Months After Random Assignment



SOURCES: MDRC calculations based on GED test data and transcript data from NWTC.

NOTES: Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent. Results in this table are regression-adjusted, controlling for pre-random assignment characteristics. Rounding may cause slight discrepancies in calculating sums and differences.

enrollment rates. “Postsecondary courses” include both college courses that counted toward an associate’s degree and that required a high school credential to enroll, and occupational courses that did not require a high school credential. Both type of courses awarded credits. The GED Bridge group was more likely to enroll in college courses at NWTC. Among all students in the study (not just those who earned GEDs), GED Bridge increased enrollment in college courses by 8.5 percentage points, a 75 percent increase.<sup>36</sup> GED Bridge did not affect enrollment in occupational courses.

GED Bridge group members also attempted and earned more credits.<sup>37</sup> GED Bridge group members attempted 3.2 credits and earned 1.9, on average, while GED Prep 2 group members attempted 1.9 credits and earned 0.8. Among those who enrolled in college courses — a nonexperimental measure,

36. Among study participants, 11 students enrolled in developmental (remedial) courses such as Pre-Algebra or Introduction to College Writing. These courses are included in the college course measure, although they do not count toward any degree. These 11 students represent 21 percent of all students who enrolled in postsecondary courses, with the same proportion among the GED Bridge and GED Prep 2 groups.

37. Credits attempted and earned include credits for all postsecondary courses.

as it only includes those who enrolled — GED Bridge students attempted 15.7 credits and GED Prep 2 students attempted 13.2 credits (not shown). Among those who enrolled in occupational training — also a nonexperimental measure — GED Bridge group members attempted 9.8 credits and GED Prep 2 members attempted 4.8 credits (not shown).

## COSTS

This section compares the resources required to implement the GED Bridge program with those needed for the GED Prep 2 class. Since the GED Bridge program provides more services than the GED Prep 2 class, it was expected that GED Bridge would require more resources from the college to implement. To compare the two programs' costs, the study team compiled a list of program components and the associated expenses for each component.<sup>38</sup> These components include recruitment, GED instruction (including facilities use), transition services, and financial assistance to students who needed help with GED exam fees.<sup>39</sup> These expenses were added to determine the total cost of operating the GED Bridge program and the GED Prep 2 program for one year. Net costs were calculated by subtracting the GED Prep 2 program costs from the GED Bridge program costs. The study team also calculated the average costs of providing services to a sample member in each of the two GED programs over the 18-month follow-up period.

### Total Annual Costs

Table 4 shows the total cost, or the resources required, to operate the GED Bridge and GED Prep 2 programs in calendar year 2017, a period when the GED classes were in a “steady state,” meaning the program did not include any start-up efforts or costs. During 2017, NWTC offered four terms of instruction: 3 weeks for the winter term, 15 weeks each for the spring and fall terms, and 11 weeks for the summer term.

The total annual cost of operating the GED Bridge program was \$346,436 and the total annual cost of the GED Prep 2 program was \$208,943. Recruitment costs were assumed to be the same for both groups. Financial assistance for GED test fees provided the same amount to GED Bridge and GED Prep 2 students who qualified for the assistance. The greater total costs of the GED Bridge program were based on higher instructional costs and the additional services provided by the transitions specialist. GED Bridge students were taught by full-time instructors with more longevity and higher compensation rates. In comparison, around 80 percent of GED Prep 2 classes in 2017 were taught by part-time faculty members who were paid at lower hourly rates and did not receive fringe benefits

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38. The approach taken generally follows the ingredients method described by Levin et al. (2017).

39. Program administration costs were added to all components that required nonnegligible program oversight (recruitment, GED instruction, and transition support). These administrative oversight costs include a quarter of a program administrator's time for program oversight, which in turn includes overhead rates for the Federal Insurance Contributions Act, Medicare, and the Wisconsin Retirement System. Overhead rates for financial assistance for GED exam fees were not added because this component of the program needed minimal oversight. All four program components also included overhead rates as part of the college's negotiated indirect cost rate agreement.

**TABLE 4 2017 Annual Total Costs**

| PROGRAM COMPONENT                      | GED BRIDGE       | GED PREP 2       | 2017 ANNUAL NET COSTS |
|--|------------------|------------------|-----------------------|
| Recruitment                            | \$17,247         | \$17,247         | \$0                   |
| GED instruction                        | \$260,042        | \$190,160        | \$69,883              |
| Transition support                     | \$67,610         | \$0              | \$67,610              |
| Financial assistance for GED test fees | \$1,536          | \$1,536          | \$0                   |
| <b>Total</b>                           | <b>\$346,436</b> | <b>\$208,943</b> | <b>\$137,493</b>      |

SOURCES: MDRC calculations based on fiscal data, GED attendance records, and the NWTC transition counselor's contact log.

NOTE: Rounding may cause slight discrepancies in calculating sums and differences.

such as vacation, pension contributions, health insurance, and sick leave. GED Bridge students were also supported by a transitions specialist, unlike the GED Prep 2 students.

## Gross and Net Costs Per Sample Member

The total costs describe the resources needed to implement the GED Bridge and GED Prep 2 programs. Calculating the cost of the intervention per sample member helped reveal how much it costs to provide services to the average student. To estimate the gross cost per sample member (who received varying amounts of services across the study period, 2015 to 2019), the study team calculated unit costs for each component of the program and allocated them to sample members based on students' use of services during the 18-month follow-up period.

Unit costs were calculated by dividing the total cost of each component by the "service units" of that component provided during that same period (calendar year 2017). For example, GED instruction costs in 2017 were divided by the hours students attended class in 2017, yielding a cost per student-hour. Then, gross costs per unit were calculated by multiplying unit costs for each component by the average number of units received by a sample member in the 18-month follow-up period. So to continue the example, the cost per student-hour was multiplied by the average number of hours a student attended class.<sup>40</sup>

40. The unit cost for recruitment is based on the total recruitment cost divided by the number of students enrolled into the program in 2017. The GED instruction unit costs are based on the total GED Bridge and GED Prep 2 instruction costs divided by GED instruction hours received by all students in these classes (study and nonstudy). The transition support unit cost is based on the total transition support cost divided by the total number of contacts all students had with the transitions counselor. The unit cost for GED test fees financial assistance is based on the total cost for financial assistance divided by the number of scholarship recipients.

**TABLE 5** Estimated Gross and Net Costs for GED-Related Activities Within an 18-Month Follow-Up Period, by Program (in 2017 Dollars)

| PROGRAM COMPONENT                      | TOTAL GROSS COST PER GED BRIDGE SAMPLE MEMBER | TOTAL GROSS COST PER GED PREP 2 SAMPLE MEMBER | NET COST PER GED BRIDGE SAMPLE MEMBER |
|--|---|---|---------------------------------------|
| Recruitment                            | \$305   | \$305   | \$0                                   |
| GED instruction                        | \$6,933                                       | \$1,347                                       | \$5,586                               |
| Transition support                     | \$983   | \$0   | \$983                                 |
| Financial assistance for GED test fees | \$9   | \$9   | \$0                                   |
| <b>Total</b>                           | <b>\$8,231</b>                                | <b>\$1,661</b>                                | <b>\$6,569</b>                        |

SOURCES: MDRC calculations based on fiscal data, GED attendance records, and the NWTC transition counselor’s contact log.

NOTE: Rounding may cause slight discrepancies in calculating sums and differences.

Table 5 shows the estimated gross and net costs per sample member assigned to the GED Bridge and GED Prep 2 programs. The cost per GED Bridge group member is \$8,231, while the cost per GED Prep 2 group member is \$1,661. The net cost per GED Bridge group member is \$6,569.

As discussed earlier, the total cost difference between the GED Bridge and GED Prep 2 programs reflects differences in the costs of two program components: GED Bridge had higher instructional costs and offered additional transition support. These cost differences are reflected in the per-sample-member costs, as well. Costs per GED Bridge group member were higher than costs per GED Prep 2 group member because GED Bridge had smaller class sizes than GED Prep 2, GED Bridge students attended more hours of classes, and GED Bridge instructors had higher salaries.

The class-size difference played the biggest role, because students who declined to participate in the study were placed directly into the GED Prep 2 program. In addition, a large number of students ineligible for the study were also placed in the GED Prep 2 class.<sup>41</sup> There were 68 students in GED Bridge in 2017 and 131 students in GED Prep 2. The higher student-to-teacher ratios in GED Prep 2 classes contributed to much lower instruction costs per sample member for GED Prep 2 compared with GED Bridge.

The greater persistence of GED Bridge students also contributed to the program’s higher cost per sample member. As discussed above, under “Engagement and Attendance in GED Classes,” GED

41. There were 86 students placed in GED Prep 2 in 2017 who did not participate in the study. Some of these students opted out of the study and were placed directly in GED Prep 2 and some were not eligible for the GED Bridge program and thus were placed in GED Prep 2.

Bridge group members attended 28 hours more than GED Prep group members. GED Bridge faculty members' higher pay rates also affected the costs per sample member.

## Alternative Scenarios and Cost-Effectiveness

The study team performed a few sensitivity analyses — creating alternative scenarios to estimate program costs — to address several unusual conditions that affected costs in the NWTC study. Because students who were not eligible for the study were automatically assigned to GED Prep 2, while students who were eligible for the study were assigned at random to GED Prep 2 and GED Bridge in equal numbers, GED Prep 2 ended up with more students than GED Bridge. In the absence of the research study, students probably would have been distributed more evenly across the two classes. As a result and student-teacher ratios would have been more equal and there would have been more students in the GED Bridge program receiving transition support. In addition, since student enrollments and attendance did not approach limits on teacher loads or classroom sizes, it is reasonable to assume that the greater persistence observed among GED Bridge students might not have resulted in additional operating costs. In this alternative scenario (where all students are evenly assigned to the GED Bridge and GED Prep 2 programs, with equal class sizes in each group, and where the marginal cost of the GED Bridge students' additional attendance is \$0), the net cost per sample member is considerably lower. In this scenario, the cost per GED Bridge group member is \$3,494, the cost per GED Prep 2 group member is \$2,149, and the net cost per sample member is \$1,346.

As noted earlier, the GED Bridge instructors had greater longevity and higher salaries. In addition to the adjustments in the first scenario, in a second alternative scenario GED Bridge instructors might also receive the same compensation as GED Prep instructors. The only difference that would remain in the costs of the two GED programs would be the cost of the transitions specialist. In this hypothetical situation, the net cost of GED Bridge per sample member gets even smaller. Here, the cost per GED Bridge group member is only \$672 higher than the cost per GED Prep group member.

One way to put program costs in context is to examine the cost to produce an important outcome, for example, the cost per GED earned. As implemented, the GED Bridge program was not as cost-effective as GED Prep 2; for it to be as cost-effective as GED Prep 2, more than 100 percent of GED Bridge students would have had to earn GEDs — an impossible scenario. In the first alternative scenario (where all students are evenly distributed between GED Bridge and GED Prep 2 and the marginal cost of increased attendance for the GED Bridge group is assumed to be \$0), the cost per GED Bridge group student is 1.6 times greater than the cost per GED Prep 2 group student. To be as cost-effective in this scenario, the GED Bridge program would need to produce an impact that was 1.6 times greater than the GED Prep 2 program. In other words, since 21.5 percent of the GED Prep group earned their GEDs, the GED Bridge program would be as cost-effective as the GED Prep 2 program if 35.0 percent of GED Bridge group members earned their GEDs. The observed GED completion rate for the GED Bridge group was 33.2 percent, meaning the GED Bridge program was close to being as cost-effective as GED Prep 2 under this alternative scenario.

In the second alternative scenario (where the only cost difference between GED Bridge and GED Prep 2 is for the transition services), the cost per GED Bridge group member is 1.3 times greater than the cost per GED Prep 2 group member, so GED Bridge would be as cost-effective as GED Prep 2 if

28.2 percent of sample members completed their GEDs. The GED Bridge program therefore would be as cost-effective as GED Prep 2 under this second alternative scenario.

Although these alternative scenarios suggest various ways costs per sample member could be reduced for GED Bridge, one cannot assume that these alternative scenarios would create the same positive, statistically significant impacts that were detected in this study. It is possible that beyond the addition of transition services, the difference in instructors' experience and qualifications also contributed to better outcomes for GED Bridge students.

Another important consideration is that the cost-effectiveness measures do not account for the potential long-term benefits to society of students completing their GEDs and enrolling in college. Longer-term benefit-cost analyses typically do attempt to capture such future benefits of an increase in educational attainment (benefits that include higher employment rates and earnings), and it is possible that those benefits could outweigh the costs of the program.<sup>42</sup> A full benefit-cost analysis is beyond the scope of this short-term analysis, however. Finally, the additional costs per sample member could be offset if the college received additional revenue for enrolling more students or engaging them for a longer period.

## IMPLICATIONS AND FURTHER RESEARCH

This study adds to a body of research suggesting that bridge-to-college GED programs that offer contextualized instruction and support for attendance and postsecondary transition may improve GED completion and postsecondary enrollment. The impacts are promising: GED completions for the GED Bridge group increased by 11.7 percentage points — or more than 54 percent — over the GED Prep 2 group. Given the importance of postsecondary education as a pathway to quality jobs, the impacts on college enrollment were also impressive: 19.9 percent of the GED Bridge group enrolled in college classes, compared with 11.4 percent of the GED Prep 2 group. These findings should also be interpreted in conjunction with the local context. Staff members and students noted that the economy in Green Bay was strong and getting stronger during the study period, and there were quality jobs available in Green Bay that did not require high school diplomas or equivalents. GED completion and college enrollment rates may have been higher overall in an economy where good jobs were scarcer.<sup>43</sup>

Further, this study adds to the evidence base on GED preparation programs, a sector of adult education programs that have not been studied extensively. A study of the GED Bridge program at LaGuardia Community College in New York City — on which the NWTC GED Bridge program was modeled — also found impacts on GED completion and postsecondary enrollment. LaGuardia's GED Bridge had large impacts on the main outcomes: There was a 30 percentage point impact on GED completion rates (53 percent for the GED Bridge compared with 22 percent for the control group) and a 17 percentage point impact on enrollment at a City University of New York (CUNY)

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42. Schweinhart et al. (2005).

43. National Student Clearinghouse (2019).

community college (24 percent compared with 7 percent).<sup>44</sup> Compared with NWTC, GED Bridge students at LaGuardia earned GEDs at a higher rate (53 percent at LaGuardia compared with 33 percent at NWTC). GED Bridge students at LaGuardia enrolled in college at slightly higher rates than those at NWTC (24 percent at LaGuardia compared with 19 percent at NWTC).<sup>45</sup> The control group at NWTC had higher enrollment than the control group at LaGuardia (11 percent compared with 7 percent at LaGuardia).

There were some differences in the characteristics of sample members. LaGuardia students were less likely to be working (38 percent compared with 60 percent at NWTC) and entered the program with higher test scores (50 percent had TABE reading scores at ninth-grade level or above compared with 41 percent at NWTC). The GED Bridge study at LaGuardia measured impacts at 12 months, rather than the 18 months measured here. Both programs improved persistence. At LaGuardia, more GED Bridge students completed that course (68 percent compared with 47 percent for the control group), which was three weeks longer than the GED preparation course offered to the control group. At NWTC, GED Bridge group attended classes for twice as long as GED Prep 2 group students. These effects on persistence alone for these bridge-to-college programs are impressive since adult education programs usually face challenges in retaining students. Finally, the two studies took place at different times: The LaGuardia study focused on the pre-2014 test and was conducted during the Great Recession, while the NWTC study focused on the post-2014 test and took place during a period of economic growth.

Despite their different contexts, the GED Bridge programs at NWTC and LaGuardia had similar elements — a contextualized curriculum, cohort enrollment, and focused support for postsecondary transitions — indicating that these program elements in a GED class can boost GED pass rates and postsecondary enrollment. However, these gains came with higher costs. The analysis of costs at NWTC did not find that the program was as cost-effective as GED Prep 2. However, some of the particularities of how the program was delivered at NWTC had a substantial impact on cost. Sensitivity analyses indicate that the program may have been as cost-effective as GED Prep 2 under alternative scenarios, though it is unknown whether the program would have achieved the same impacts if it had been structured differently. Program administrators and policymakers should consider these caveats when weighing the costs and cost-effectiveness of the GED Bridge program.

The central strategies of these bridge-to-college models align with widespread views, enshrined in the federal Work Innovation and Opportunity Act, that effective adult education models must integrate teaching academic skills with building skills for the workforce. These promising results from bridge-to-college programs can offer a model for states and providers. Currently, these findings apply to the small share of GED classes that take place on college campuses. Program operators might also try building these elements into the community-based GED preparation classes that are more prevalent. In those contexts, however, students would probably need additional support for postsecondary transition to receive exposure to the postsecondary setting and enhanced opportunities for career exploration.

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44. All findings from the LaGuardia study mentioned in this section are from Martin and Broadus (2013).

45. The LaGuardia study's college enrollment measure took in all CUNY schools, while the NWTC study only measured college enrollment at NWTC.

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