

A woman with long, dark, wavy hair is standing outdoors. She is wearing a white lab coat over a bright orange apron with large, stylized purple and pink floral patterns. Underneath the apron, a pink ruffled collar is visible. A stethoscope is draped around her neck. She has her right hand on her hip and is looking directly at the camera with a slight smile. The background shows a brick building and some greenery, slightly out of focus. A dark blue diagonal graphic element is in the top left corner.

# Fourteen Year Gains: Project QUEST's Remarkable Impact

Anne Roder and Mark Elliott  
Economic Mobility Corporation

October 2024

## On the Cover: Michelle Newsom

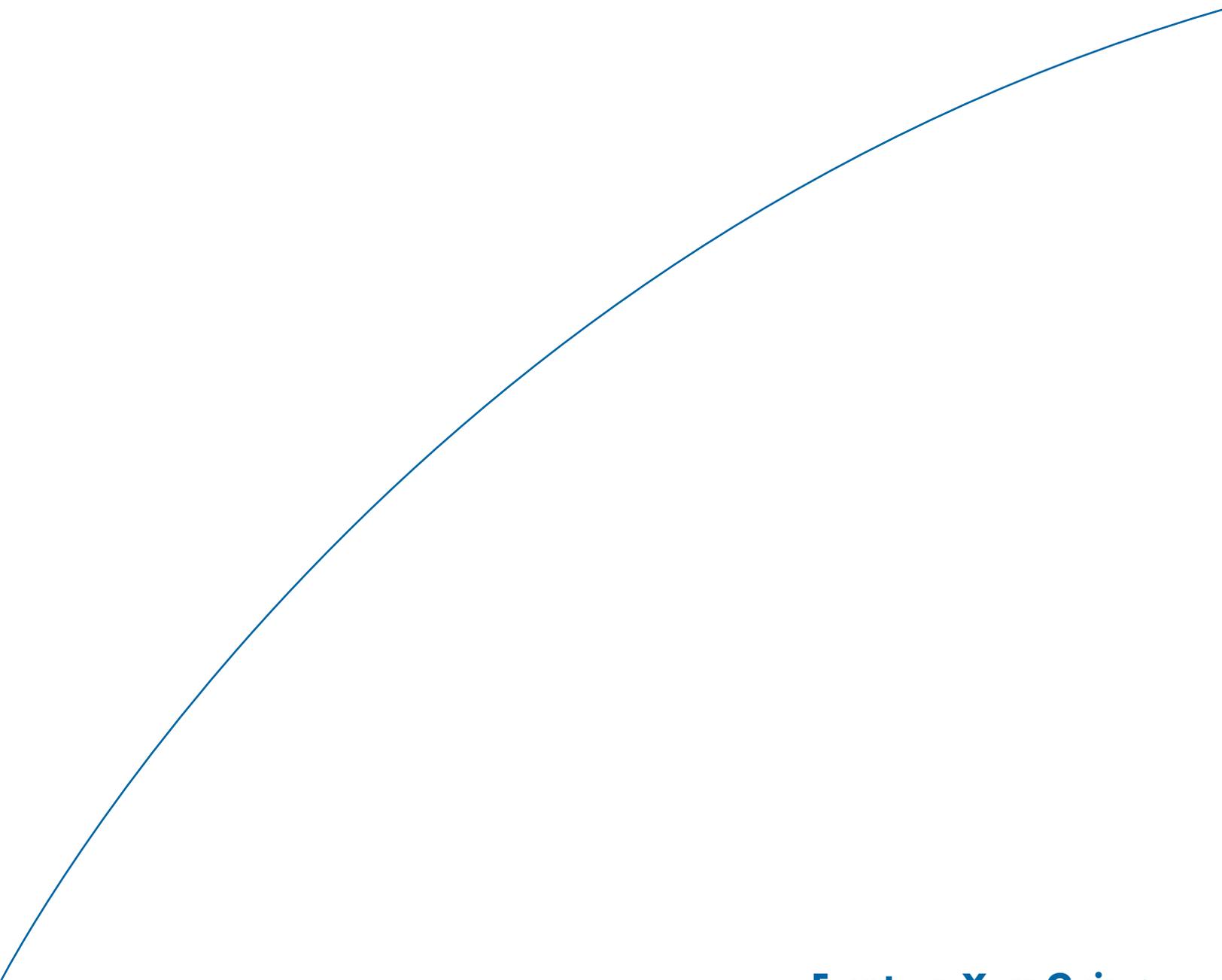
Michelle was earning \$7.25 an hour as a caregiver in group homes for people with disabilities when she first heard about Project QUEST. Adopted by her grandparents when her mother's drug addiction proved overwhelming, Michelle dropped out of high school at 15 when she had a child. Unable to complete her high school degree, she earned a GED. Michelle thought college was meant for other people and was certainly beyond her reach.

After Michelle had been working in the group homes for five years, a friend who had participated in Project QUEST saw how Michelle cared for the residents and thought she would make an excellent nurse. Michelle didn't believe her and thought the program must be some kind of scam. "How much do I have to pay these people back? I don't want to owe people money," she said. Her friend persuaded her to give it a try. It took Michelle four years to earn her associate's degree in nursing. Because she only had a GED, Michelle first had to earn her associate's degree in applied science before she applied to nursing school. Project QUEST supported her through the entire process. At times Michelle felt like quitting, in part because she has an autistic son who needs considerable support and attention. But her QUEST counselor kept encouraging her whenever Michelle would say maybe this wasn't right for her. "Michelle, this is for you. Keep going!" Michelle couldn't believe it when Project QUEST not only helped pay for her tuition but paid for her books as well. "You're going for nursing, some of those books cost \$300 each!"

Some of her friends in the nursing program weren't in Project QUEST. They typically had student loans and had to work full-time while going to school—making graduating much more difficult.

Michelle went on to earn her bachelor's of science in nursing and has nearly completed her qualifications to be a family nurse practitioner at the University of Texas. She makes \$80,000 per year working with neonatal babies and their mothers at Ascension Seton Medical Center Austin. She is also married and the mother of four children.

She tells everyone she meets about Project QUEST. "If it wasn't for QUEST, I wouldn't be here right now. QUEST gave me that chance."



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The Economic Mobility Corporation (Mobility) identifies, develops, and evaluates programs and policies that enable disadvantaged individuals to acquire the education, skills, and networks needed to succeed in the labor market so that they can support themselves and their families.

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## Summary

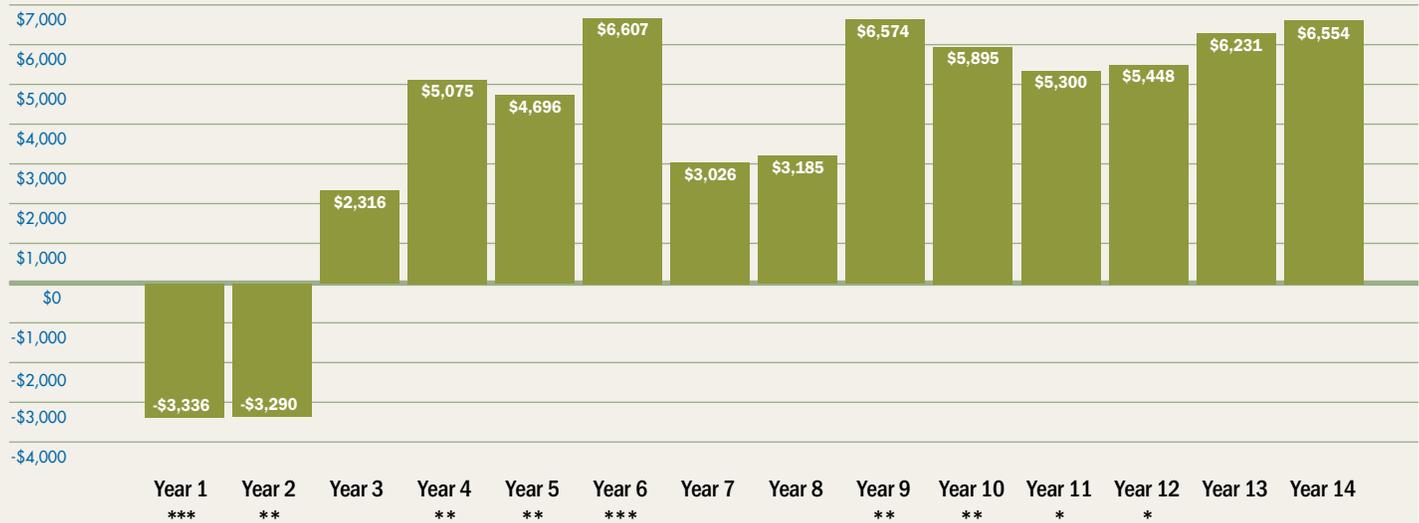
Project QUEST, founded in San Antonio, Texas, in 1992, provides financial, academic, and personal supports to help adults with low incomes obtain postsecondary education credentials needed to access well-paying jobs in strong sectors of the local economy. Economic Mobility Corporation (Mobility) conducted a randomized controlled trial (RCT) study of Project QUEST to assess its impacts on credential attainment and earnings among individuals pursuing health-care careers. We previously reported that Project QUEST had large, positive impacts on participants' credential attainment and earnings during the 11 years after study enrollment. With financial support from Ascendium Education Group, we worked with the Ray Marshall Center at the University of Texas at Austin to examine whether the program's impacts continued to be sustained 14 years after study enrollment, using state administrative data on earnings and National Student Clearinghouse (NSC) data on postsecondary education outcomes.

In this report, we present findings on Project QUEST's impacts, describe the Project QUEST model and participants' experiences, compare the program's benefits and costs, and discuss the implications of the findings for policy and programming. Key findings follow.

- Over the entire 14-year follow-up period, QUEST participants earned an average of \$54,280 more than control group members—a statistically significant 13.5 percent increase.
- The program's earnings impact averaged \$5,300 per year from years four through 14 after study enrollment, when most QUEST participants had completed their education (**Figure 1**). Variation in earnings has increased over time, causing the differences in years 13 and 14 to fall just short of standard levels of statistical significance. However on the whole, the evidence shows that Project QUEST had large, lasting impacts on participants' earnings.
- Project QUEST increased postsecondary credential attainment by 14.3 percentage points and more than doubled the attainment of health-care credentials over the 14-year period.
- The earnings gains that QUEST participants experienced far exceeded the costs of the program and participants' college attendance.

Figure 1

### Project QUEST's Impact on Average Annual Earnings during Each of the 14 Years after Study Enrollment (N=410)



Note: Earnings impacts are reported in constant 2022 dollars and represent differences in average annual earnings between the QUEST treatment group and the control group in each year. Statistical significance levels: \*\*\*  $p < .01$ ; \*\*  $p < .05$ ; \*  $p < .10$

Project QUEST's results provide strong evidence of the potential long-term benefits of investments in strategies to help adults with low incomes obtain postsecondary credentials and access well-paying careers. Project QUEST is primarily supported through public funding, offering a model for how cities, counties, and states can invest in non-profit organizations to replicate the model in other locations. Project QUEST stands out as one of a few programs that have demonstrated substantial, lasting impacts on the earnings of low-income adults. The study's findings offer three key lessons for practitioners, policymakers, and others in the workforce development and postsecondary education fields.

- Recruiting individuals who not only can benefit from the set of services the program offers but who are also unlikely to be successful on their own.** During the study, Project QUEST recruited community members who were not enrolled in college. Most were working in low-wage jobs outside of the health-care field, had been out of school for more than a year, and needed to improve their basic math and reading skills in order to enroll in the targeted health-care programs. Project QUEST had very substantial earnings impacts for adults ages 25 and older and those who had dropped out of high school or college.

- ***Developing expertise in a sector and supporting the completion of credentials in that sector that have high labor market value.*** When the study began, Project QUEST had been working in the health-care sector for 14 years and had developed expertise in several occupations that were in demand and paid hourly wages far above what participants were earning when they enrolled. Project QUEST developed relationships with employers and community colleges to ensure that the training met employers' needs and, over time, became a trusted source of workers for local employers.
- ***Providing long-term, flexible, and personal support to help low-income adults earn credentials with high labor market value.*** Project QUEST provided participants flexible and personal support for as long as they needed to complete the targeted credentials and obtain well-paying jobs. This included remedial math and reading instruction; personal support from a counselor; financial assistance to cover tuition and other education-related expenses; emergency financial support for gas, rent, and child-care; and job placement assistance.

Project QUEST has had the ongoing political and community backing of Communities Organized for Public Service (COPS) and Metro Alliance, two church-based community organizing groups based in San Antonio, Texas, that helped launch the program in 1992 and have worked to ensure that Project QUEST has ongoing financial support. Project QUEST's strategies can and have been replicated in other communities. The key is considerable, reliable financial support that can be used flexibly to meet community members' needs.

## Introduction

Sectoral employment strategies emerged in the early 1990s in response to the growing concern that workforce development strategies in general, and the work-first emphasis in public policy in particular, were not providing individuals with the skills needed to succeed in a changing economy. Supported primarily by the Charles Stewart Mott and Ford Foundations, a small number of organizations began pursuing approaches that emphasized intimate knowledge of a sector or industry, an in-depth understanding of employers' workforce needs in that sector, and a program that prepared workers for jobs in that sector. This report presents findings from a long-term study of Project QUEST, a pioneer in the sectoral employment field that has been helping low-income San Antonio, Texas, residents prepare for well-paying careers for more than 30 years.

In the early 1990s, COPS and Metro Alliance observed local employers recruiting workers from outside the metropolitan area to fill well-paying jobs while local residents struggled in low-wage jobs that did not enable them to support their families. In 1992, COPS and Metro Alliance founded Project QUEST to help San Antonio residents gain skills to meet the needs of employers in strong sectors of the local economy. Project QUEST initially focused on the health-care sector, developing relationships with employers and an understanding of what skill sets they required for employees. Rather than creating its own training programs, Project QUEST worked with local community colleges to ensure their programs taught the skills employers required and supported community residents in completing those programs, passing certification exams, and obtaining jobs. Project QUEST provides personal, financial, and academic supports including the following:

- financial assistance to cover tuition and fees for classes, books, transportation, uniforms, licensing exams, and tutoring
- remedial instruction in math and reading to help individuals pass college placement tests
- counseling to address personal and academic concerns and provide motivation and emotional support
- referrals to outside agencies for assistance with utility bills, child-care, food, and other services, as well as direct financial assistance with other supports on an as-needed basis
- weekly meetings focusing on life skills, including time management, study skills, critical thinking, and conflict resolution
- job placement assistance, including help with writing résumés and interviewing, as well as referrals to employers that are hiring

In 2005, Project QUEST agreed to take part in a rigorous evaluation using a randomized controlled trial design to assess its impacts on participants' earnings. Project QUEST was initially part of a study we launched at Public/Private Ventures focusing on sector-based training programs. The study included Per Scholas, Jewish Vocational Service Boston, and the Wisconsin Regional Training Partnership. These organizations trained participants for jobs in information technology, construction, manufacturing, and health care, and each demonstrated large, statistically significant earnings impacts. Study enrollment at Project QUEST began later than at the other organizations. Between April 2006 and October 2008, 410 individuals enrolled in the study, of whom 207 were randomly assigned to the treatment group, which could receive Project QUEST's services, and 203 to the control group, which could not. Because individuals were randomly assigned, at the time of study enrollment there were no systematic differences between the two groups on measured characteristics, such as age, prior education, and work experience, and unmeasured characteristics, such as motivation. Therefore, any differences found in their outcomes can be attributed to Project QUEST's services. Additional details regarding the study design and the final sample are provided in the appendix. All study participants are included in the analysis, regardless of whether they received services as intended. In this report, we refer to all members of the treatment group interchangeably as "the QUEST participants" or "the QUEST group."

In previous reports, including *Eleven Year Gains: Project QUEST's Investment Continues to Pay Dividends*, we presented Project QUEST's impacts on employment, earnings, and postsecondary education attainment over the 11 years after study enrollment. In *Escalating Gains: The Elements of Project QUEST's Success*, we provided details about the Project QUEST model and participants' program experiences. With support from Ascendium Education Group, the study was extended to examine Project QUEST's impacts over the 14 years after study enrollment. The findings are based on administrative records, including Texas Workforce Commission data on quarterly earnings and NSC data on postsecondary education outcomes. Mobility contracted with the Ray Marshall Center at the University of Texas at Austin to access and analyze the data.

This report presents the study's findings regarding Project QUEST's impacts on employment, earnings, college enrollment, and completion. The primary outcome was total earnings over the 14 years after study enrollment. We also compare Project QUEST's net costs to its net benefits to assess the value to society of investing in its model.

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## Study Participants and Targeted Postsecondary Programs

As noted in the introduction, Project QUEST was founded to help community residents enroll in and complete postsecondary education and training programs in order to gain the skills and credentials needed to obtain well-paying jobs with strong labor market demand. Over time, Project QUEST also began serving adults who were already enrolled in college. However, this study sought to test the original program model, and Project QUEST recruited individuals for the study who were interested in, *but not currently attending*, college classes. This group included both those who needed to improve their basic reading and math skills before they could enroll in the targeted college programs and those who did not. To qualify for QUEST, individuals were required to have at least a high school diploma or GED and to test at least at an eighth-grade level in reading and a sixth-grade level in math on the TABE (Test of Basic Adult Education).

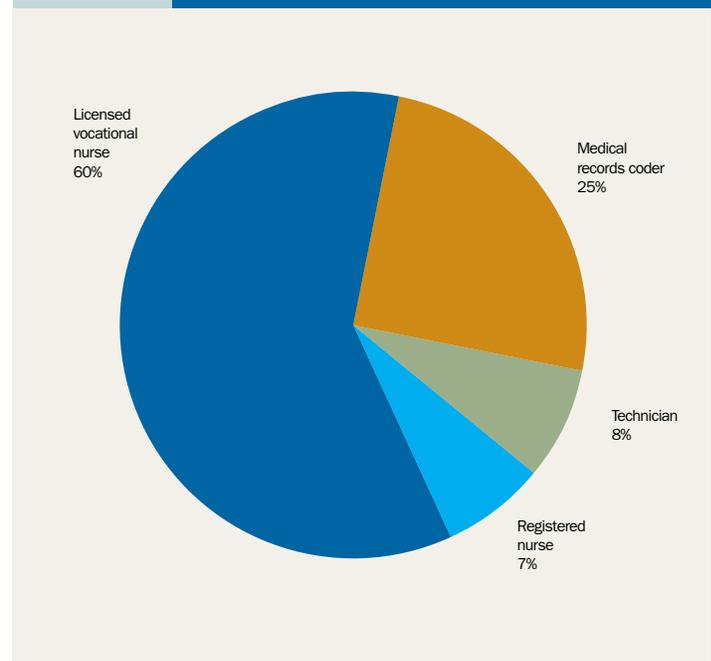
The study focused on individuals who were interested in pursuing training for health-care careers, the sector in which Project QUEST had worked the longest and served the most people. During the study period, Project QUEST supported participants in pursuing higher-skilled nursing and other allied health programs that prepared them to enter well-paying jobs upon program completion. Project QUEST did not support shorter-term training, such as certified nursing assistant programs, that would lead to lower-paying jobs and require that participants pursue further education in the future in order to obtain higher-paying jobs. Project QUEST's primary community college partners during the study period were San Antonio College and St. Philip's College, both part of the Alamo Colleges District.

Project QUEST staff thoroughly screened applicants to determine their eligibility, evaluate their aptitudes and interests, and match them to appropriate careers and training. Career counselors worked with applicants to develop academic plans that included necessary courses and timelines for completion. Counselors also helped with developing budget plans to determine whether applicants' income would cover their expenses during training. Applicants presented their plans during an interview, after which staff decided whether to recommend them for enrollment. Recommended applicants were submitted for random assignment. Career counselors worked with the individuals assigned to the treatment group, either inviting them to attend remedial classes held at Project QUEST or assisting with the college enrollment process. While control group members did not receive any further support from Project QUEST, the intake process provided them with a de facto road map for completing a certificate or degree program for their targeted health-care occupation at a local community college—which may have contributed to improving their outcomes as well.

As presented in [Table 1](#), most study participants were female, Latino, had a high school diploma, and had children under age 18 at the time of study enrollment. Most participants (69 percent) were between the ages of 25 and 64—older than traditional college-age students. Forty-five percent had previously attended college without obtaining a degree. While 84 percent had worked in the previous year, they remained poor—average annual earnings among all participants were \$15,298 (in 2022 dollars).

**Table 1** Study Participants' Characteristics at Program Entry (N=410)

Female	88.3%
Latino	74.1%
African American	13.9%
White	9.5%
Age 18 to 24	30.7%
Age 25 to 64	69.3%
Had any children under age 18	71.2%
Married	27.6%
Had a GED	25.1%
Had a high school diploma	70.2%
Had a college degree	4.6%
Previously attended college but did not earn a degree	44.9%
Employed at any time in the past year	84.4%
Average annual earnings in the past year (in constant 2022 dollars)	\$15,298

**Figure 2** Study Participants' Intended Health-Care Occupations at Program Entry (N=410)

Most study participants (85 percent) sought to enter non-degree programs, with 60 percent intending to enroll in licensed vocational nursing certificate programs. A quarter sought to enroll in a medical records coder training that was a continuing education program for which students earned a certificate of completion but no college credits. Another 15 percent of participants were interested in associate's degree programs, including registered nursing, and radiography, respiratory therapy, sonography, and surgical technician programs (Figure 2). Table A2 in the appendix provides information about the course requirements and program length for each of the health-care career tracks and the type of credential conferred. Once students completed the remedial and prerequisite classes and entered the career track programs, they were required to attend class full-time. After students completed their coursework and clinical rotations, they were required to pass a national certification exam, and in some cases a state exam, before working in their chosen professions.

### Project QUEST’s Impacts on Employment and Earnings

Project QUEST’s mission is to improve the lives of San Antonio residents by helping them gain the skills needed to access well-paying careers. Across the 14 years after study enrollment, QUEST participants on average earned \$54,280 more than control group members—a 13.5 percent increase that was statistically significant with a p-value of .052. As shown in **Figure 3**, in the first two years, QUEST participants earned less than control group members as many either reduced their work hours or stopped working to attend college. From the fourth through the 14th years after study enrollment, QUEST participants earned substantially more than control group members, on average. Given the study sample size and increasing variation in earnings over time, the 17 to 18 percent increases in earnings in years 13 and 14 fell just short of meeting standard levels of statistical significance with p-values of .102 and .107, respectively. However, taken as a whole, the evidence shows that QUEST had large, sustained impacts on participants’ earnings, with differences between the QUEST group and control group exceeding \$4,500 in nine of the last 11 years—increases of 15 to 26 percent per year.

As shown in **Figure 4**, employment rates for the QUEST group and control group were similar in most years through year nine, indicating that earnings differences between the groups were due to QUEST participants either working more hours or earning higher wages than control group members. Employment rates then began to diverge, declining more for the control group than for the QUEST group in years 10 through 14. As we discuss in the subgroup findings later in this report, the differences in employment

**Figure 3** Average Annual Earnings during the 14 Years after Study Enrollment, among All Study Participants



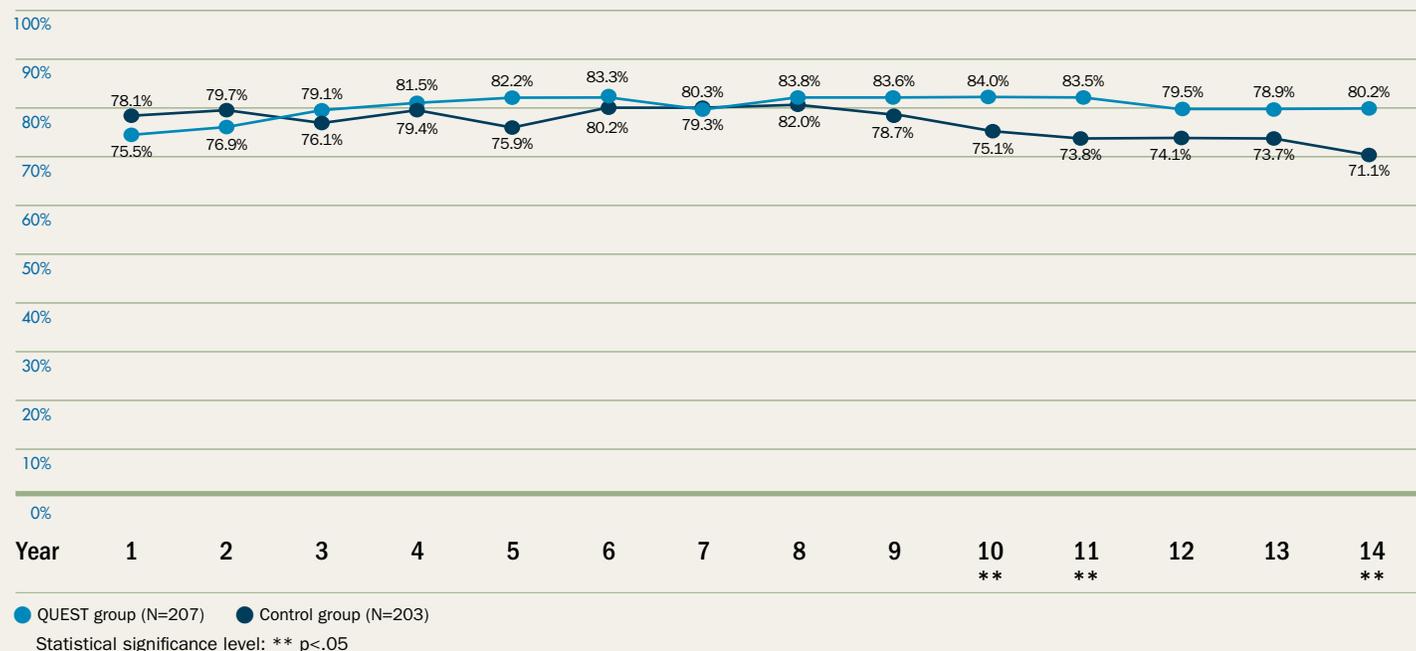
Notes: Earnings are reported in constant 2022 dollars. Figures are for all study participants, including those with zero earnings during each period. Statistical significance levels: \*\*\* p<.01; \*\* p<.05; \* p<.10

rates in the later years resulted from control group members who were ages 35 to 64 at the time of program enrollment being significantly less likely to work than their counterparts in the QUEST group.

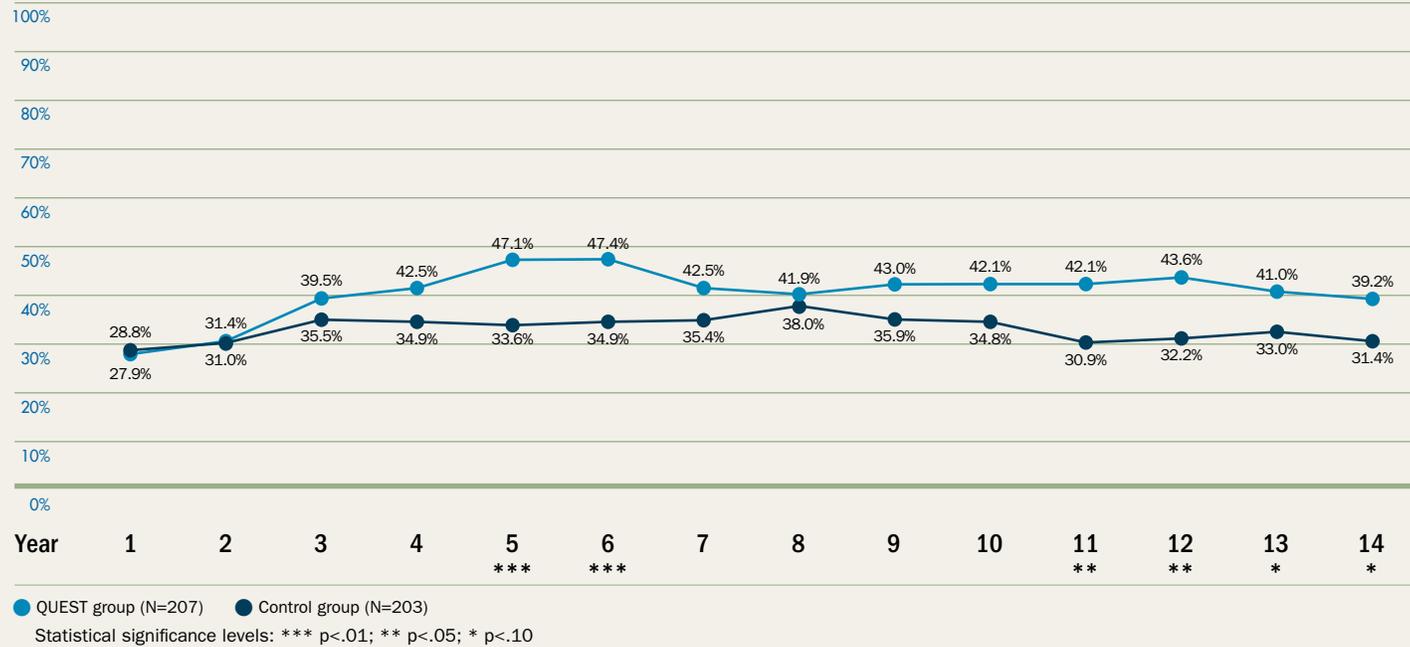
A main tenet of Project QUEST’s sectoral strategy is preparing individuals for well-paying careers while meeting the needs of employers in strong sectors of the local economy. Given the study’s focus on health-care careers, we examined whether Project QUEST increased employment in this industry. Sixty-nine percent of QUEST participants worked in the health-care industry at any time during the 14 years after study enrollment, compared to 62.7 percent of control group members—a difference that was not statistically significant. As shown in Figure 5, QUEST participants were significantly more likely to work in the health-care industry in years 11 through 14 after study enrollment. Other differences between QUEST group and control group members’ industry of employment were spread across several industries and were not statistically significant.

All individuals in the study, including those in the control group, expressed interest in pursuing a health-care career at study enrollment. Therefore, it is not surprising that a substantial portion of participants in both groups ended up working in the industry. However, in the six-year follow-up survey, we found that QUEST participants were more likely than control group members to work in higher-skilled health-care positions, such as nursing and health technician jobs—the occupations that Project QUEST targeted during the study.

**Figure 4** Percent of All Study Participants Who Were Employed at Any Time during Each Year after Study Enrollment



**Figure 5** Percent of All Study Participants Who Were Employed in the Health-Care Industry during Each Year after Study Enrollment



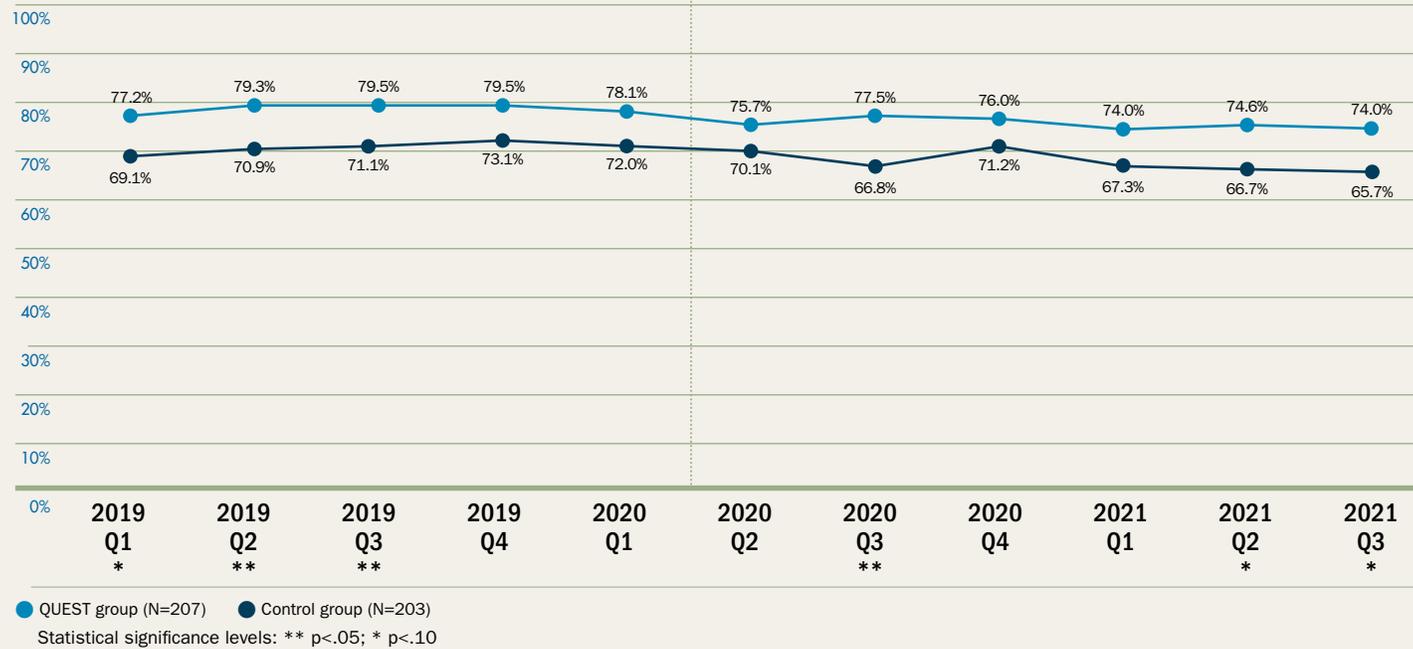
### The COVID-19 Pandemic's Influence on Project QUEST's Impacts

The 14-year follow-up period includes the onset of the COVID-19 pandemic, when unemployment soared and labor force participation declined sharply nationwide. At the start of the pandemic, employment losses were greater for Hispanic women, who made up a majority of study participants, than for others. The pandemic's effects also differed across industries, with the greatest losses in the accommodation and food services industry and the lowest in the health-care industry. Less than 2 percent of QUEST participants or control group members worked in the accommodation and food services industry at the time of the pandemic. However, given that QUEST participants were more likely than control group members to work in the health-care industry, we hypothesized that the QUEST group may have experienced smaller declines in earnings during the early quarters of the pandemic and, therefore, impacts may have grown.

Because study enrollment took place over a 2.5-year period, the follow-up years correspond to different calendar years for different cohorts of study participants. The onset of the COVID-19 pandemic in 2020 occurred in year 14 for the earliest study cohorts and in year 12 for the later cohorts. Therefore, we examined employment rates and earnings in the quarters before and after the onset of the pandemic.

Figures 6 and 7 present employment rates and average earnings during the five quarters before through the five quarters after the second quarter of 2020—the height

**Figure 6** Percent of All Study Participants Who Were Employed in Each Quarter Before and After the Start of the COVID-19 Pandemic



**Figure 7** Average Quarterly Earnings Before and After the Start of the COVID-19 Pandemic, among All Study Participants



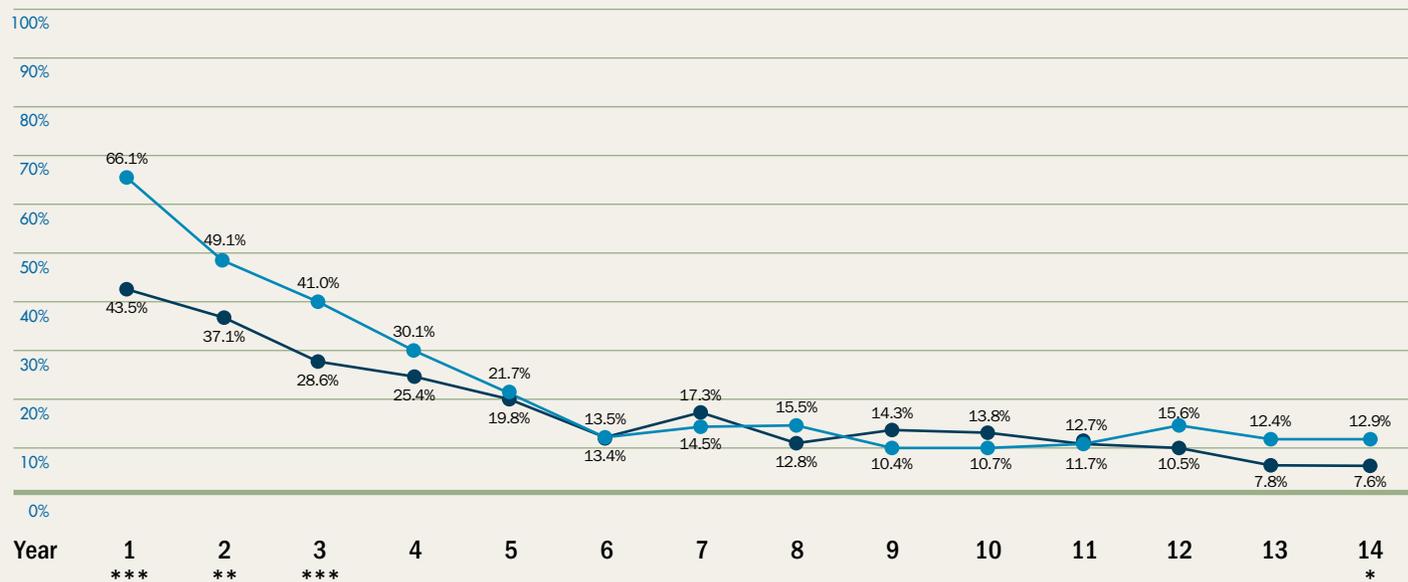
of pandemic employment losses. The results indicate that the pandemic did not have a significant effect on Project QUEST’s impacts on employment and earnings. Employment rates gradually declined over this period for both groups while average earnings continued to increase. While there were some fluctuations in individual quarters, Project QUEST’s impacts on employment rates and earnings did not differ significantly before and after the pandemic’s onset.

### Project QUEST’s Impacts on Postsecondary Education Attainment

Project QUEST seeks to increase San Antonio residents’ earnings by helping them obtain postsecondary credentials valued in the local labor market. We examined the program’s impact on college enrollment and completion using data from the NSC. While the NSC holds information for over 3,600 postsecondary institutions nationwide, schools have discretion regarding whether to report non-degree-seeking students, and the medical records coder program supported by Project QUEST during the study was not reported to the NSC. Therefore, the findings that follow underestimate Project QUEST’s full impact on credential attainment because they do not include this information.

We found that Project QUEST increased enrollment in NSC-covered college degree and certificate programs. Just over three-quarters (76 percent) of QUEST participants enrolled in college at any time during the 14 years after study enrollment compared to 66 percent of control group members—a statistically significant 10-percentage-point

**Figure 8** Percent of All Study Participants Enrolled in NSC-Covered Postsecondary Education in Each of the 14 Years after Study Enrollment

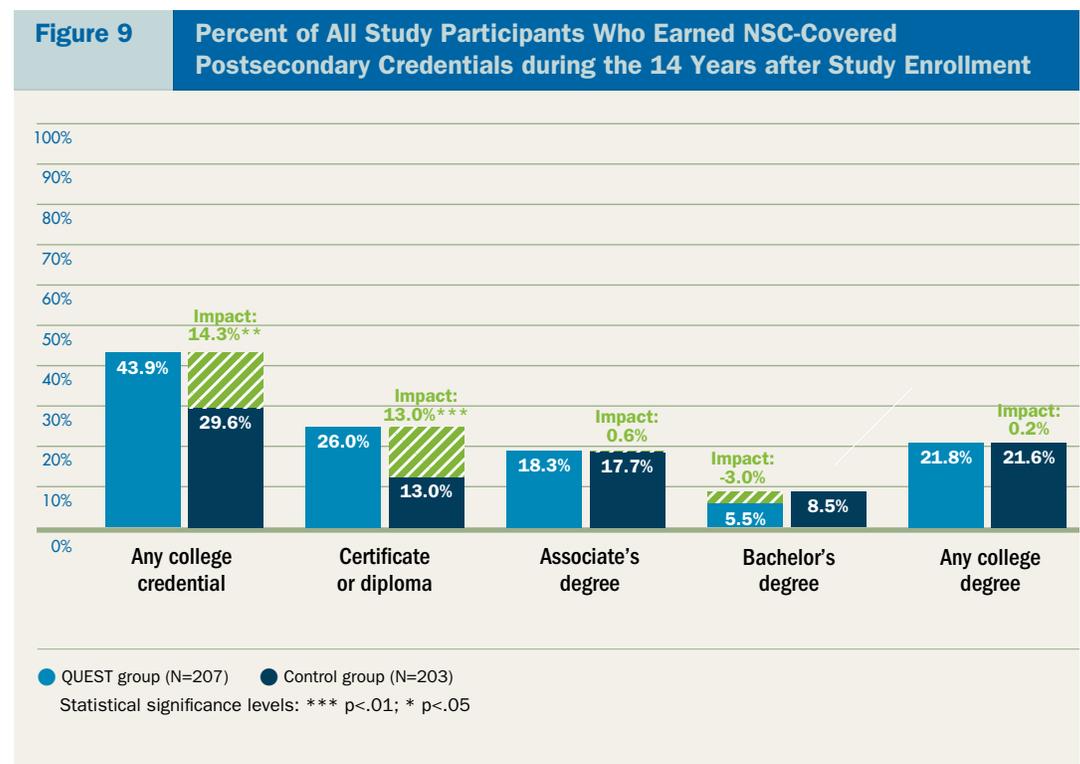


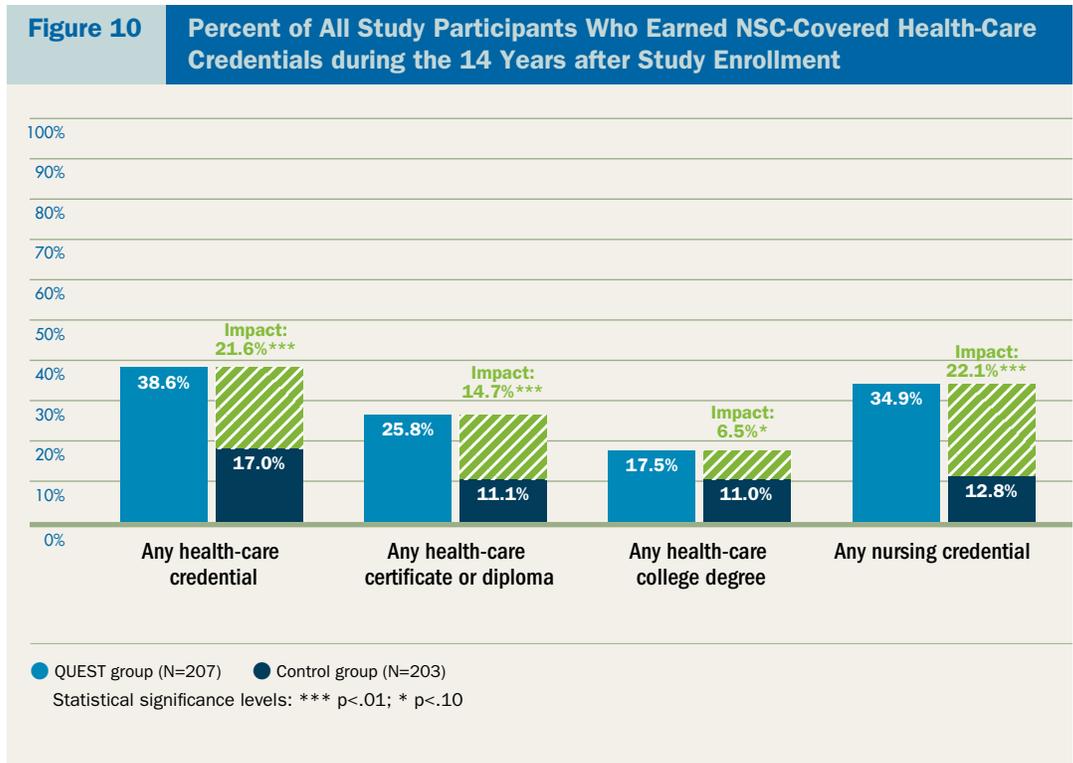
Statistical significance levels: \*\*\* p<.01; \*\* p<.05; \* p<.10

difference. As shown in **Figure 8**, Project QUEST had a significant, positive impact on college enrollment in the first three years after study enrollment. College enrollment rates were similar for the two groups in years five through 11 but started to diverge again in years 12 through 14 as some QUEST participants returned to college while enrollment rates declined for the control group.

QUEST participants were significantly more likely than control group members to earn NSC-covered credentials during the 14 years after study enrollment (**Figure 9**). Nearly 44 percent of QUEST participants earned any college credentials, compared to 29.6 percent of control group members—a 48 percent increase. Project QUEST doubled the percentage of participants who completed a college certificate or diploma program. Differences in completion of college degrees were not statistically significant.

As noted earlier, the study focused on Project QUEST's efforts to help individuals earn credentials and enter careers in the health-care field. As shown in **Figure 10**, Project QUEST more than doubled the percentage of participants who earned a college credential in the health-care field. The largest impact was on the percentage who completed a health-care certificate or diploma program, primarily licensed vocational nursing certificates. The program's full impact on completing health-care certificate or diploma programs is likely underestimated because the data do not include the medical records coder program. Project QUEST also had a positive impact on the percentage who earned a college degree in the health-care field, primarily associate's degrees in nursing.



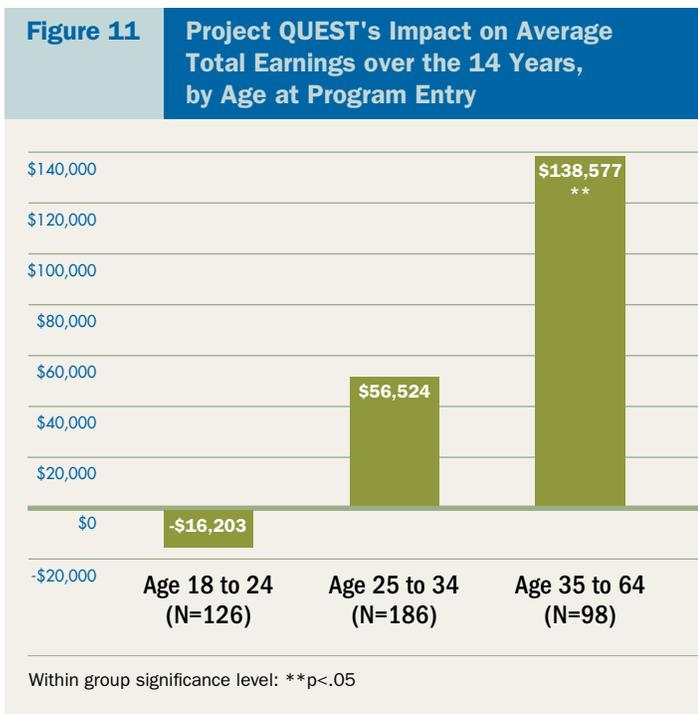


### Project QUEST’s Subgroup Impacts

We examined whether there were differences in Project QUEST’s impacts for subgroups of participants, based on demographics, education, and family status. This analysis was exploratory since the study was not designed to ensure that sample sizes across

subgroups would be large enough to detect effects of a policy-relevant size. The main findings from this analysis were that Project QUEST’s impacts on employment and earnings were greatest for participants older than traditional college age and for those who previously had dropped out of high school or college.

Project QUEST had the largest impact on total earnings over the 14 years after study enrollment for the subgroup of participants ages 35 to 64 at the time of study enrollment. In this age group, QUEST participants earned on average nearly \$139,000 more than control group members over the 14 years (Figure 11). QUEST participants ages 35 to 64 at enrollment also were significantly more likely than their control group counterparts to be employed at any point in years nine through 14 after study enrollment (Figure 12). While the employment rate for the control group increased from a low of 55.7

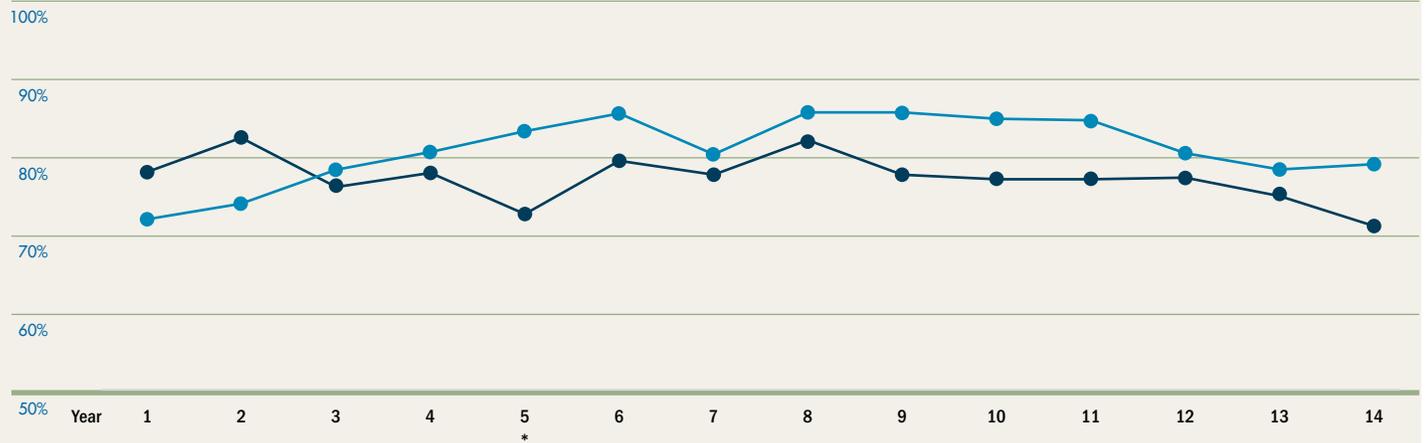


**Figure 12** Percent of All Study Participants Who Were Employed at Any Time during Each Year as after Study Enrollment, by Age at Program Entry

**Age 18 to 24 at Program Entry**



**Age 25 to 34 at Program Entry**



**Age 35 to 64 at Program Entry**

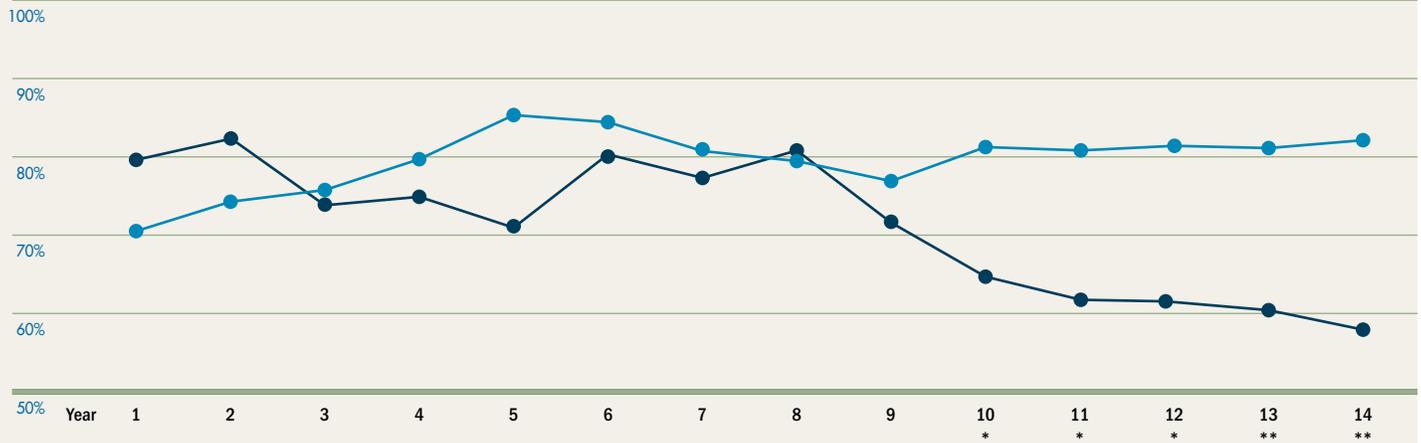


● QUEST group ● Control group

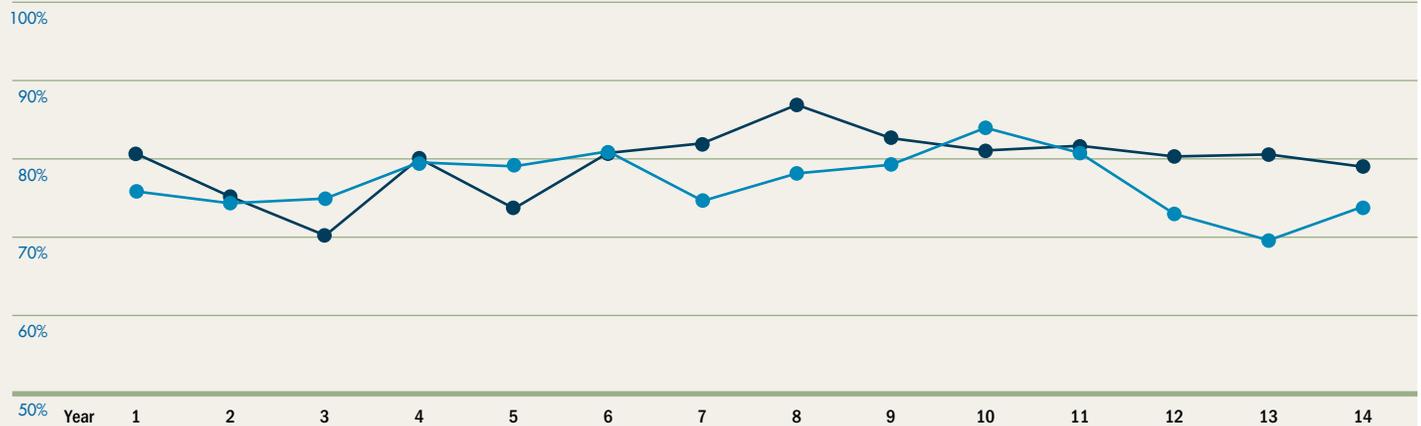
Statistical significance levels: \*\*\* p<.01; \*\* p<.05; \* p<.10

**Figure 13** Percent of All Study Participants Who Were Employed at Any Time during Each Year after Study Enrollment, by Education Level at Program Entry

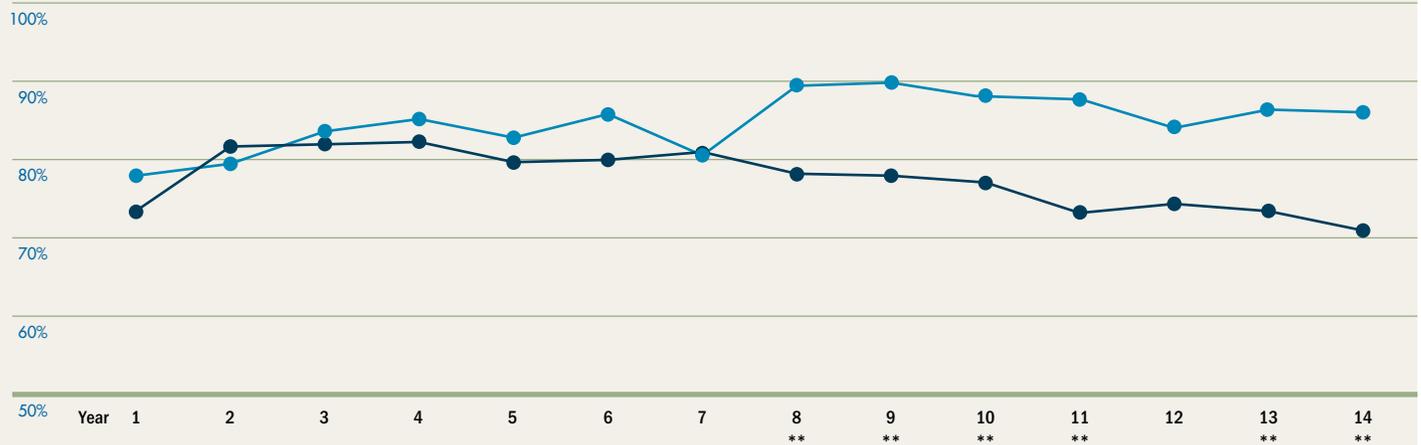
**Had a GED at Program Entry**



**Had a High School Diploma at Program Entry**

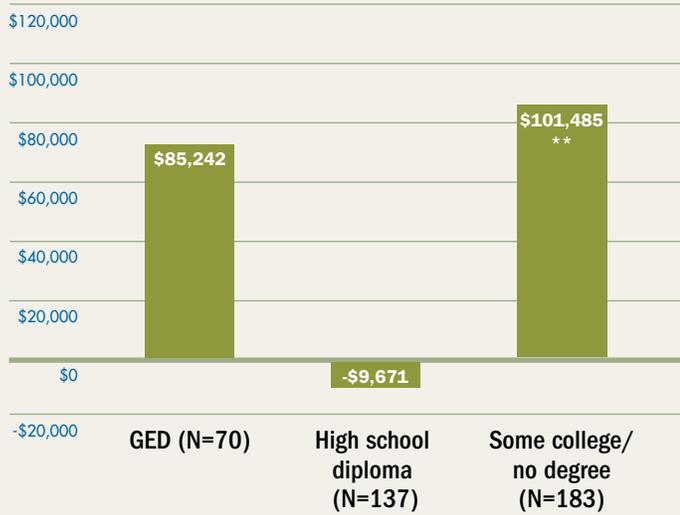


**Had Some College but No Degree at Program Entry**



● QUEST group (N=50) ● Control group (N=48)  
 Statistical significance levels: \*\*\* p<.01; \*\* p<.05; \* p<.10

**Figure 14** Project QUEST's Impact on Average Total Earnings over the 14 Years, by Education Level at Program Entry



Within group significance level: \*\*p<.05

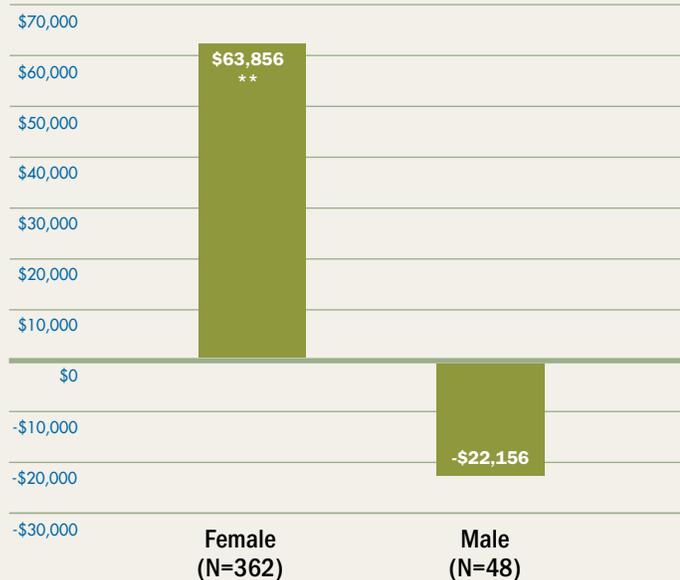
percent in year 11 to 66 percent in year 14, the rate for the QUEST group was nearly 17 percentage points greater in year 14.

We also found that Project QUEST's impacts on total earnings over the 14 years were greatest for those whose highest education level at program entry was a GED or some college credits but no degree (Figure 14). The \$101,485 difference for those with some college but no degree was statistically significant. As shown in Figure 13, QUEST participants with some college experience but no degree at program entry were more likely than their control group counterparts to be employed in years eight through 14 after study enrollment, and QUEST GED holders were more likely than control group GED holders to be employed in years 10 through 14.

Additionally, we found that Project QUEST had statistically significant, positive impacts for women but not for men in the areas of credential attainment and total earnings over the 14 years after study enrollment (Figure 15).

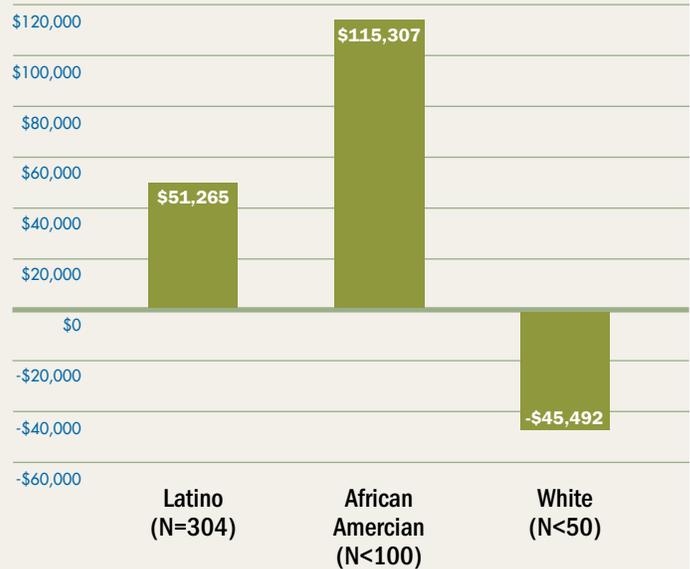
Project QUEST's impacts on total earnings over the 14 years were large for both Latino and African American participants, although just short of meeting standard levels of statistical significance (Figure 16).

**Figure 15** Project QUEST's Impact on Average Total Earnings over the 14 Years, by Gender



Within group significance level: \*\*p<.05

**Figure 16** Project QUEST's Impact on Average Total Earnings over the 14 Years, by Race



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## The Project QUEST Model and Participants' Program Experiences

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### The Project QUEST Model

The Project QUEST model includes developing relationships with local employers and training providers and providing personal, financial, and academic supports to help low-income adults obtain the necessary credentials for well-paying careers.

*Forging relationships in the health-care sector.* Much of Project QUEST's groundwork with employers and education providers in the health-care industry was completed prior to the start of this study, but it is important to understanding the program's impacts. Project QUEST employed staff dedicated to developing relationships with businesses, understanding what skill sets they required for employees, and working with local colleges to develop or modify programs to teach those skills. When the study began, Project QUEST had been working in the health-care sector and producing successful graduates for more than 10 years—making the program a trusted source of workers for local employers.

*Remedial education.* During the study period, Project QUEST sought to extend its services to individuals with lower basic reading and math skills than those it had served in the past, and to provide them with remedial instruction to prepare them to enroll in college-level classes. When the study began, Project QUEST and the Alamo Colleges District implemented a model in which a cohort of students took contextualized math and reading classes with the expectation that they would transition together into pre-requisite and core program classes. The cohort model proved difficult to implement, however, particularly in the context of a randomized controlled trial study. Project QUEST had difficulty recruiting enough students who were interested in the same career track and who had academic skills at about the same level. Additionally, when students did not pass prerequisite courses, they had to restart with another cohort. Therefore, the seamless transition into the career track courses and the supportive peer relationships that Project QUEST had hoped for were not sustained.

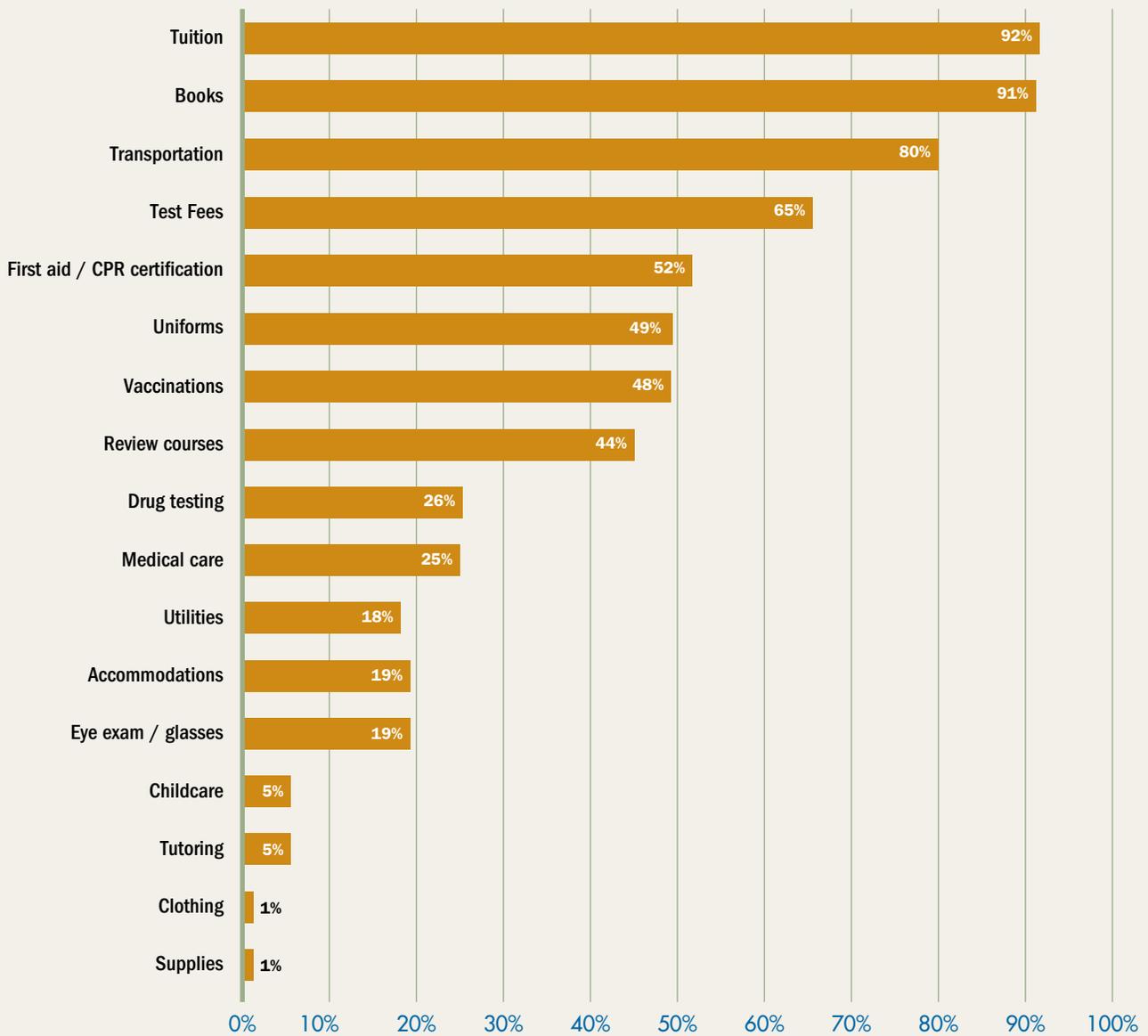
Given these difficulties, Project QUEST changed strategies about a year after study enrollment began. At that time, Project QUEST brought an adult basic education instructor from the San Antonio Independent School District on site to help students improve their math and reading skills so that they could pass the colleges' placement tests and avoid taking remedial classes. These "QUEST Prep" classes were available 25 hours per week and were tailored to students' needs. QUEST continued to offer these classes throughout the study period. In order to meet the study's enrollment goals, Project QUEST also began enrolling its traditional population in the study—individuals who were academically ready to enroll in college-level classes. Overall, 63.4 percent of QUEST participants took part in remedial classes, including those offered by Project QUEST and the community college partners.

*Financial assistance.* When study enrollment began, Project QUEST paid 100 percent of participants' college tuition and fees as well as the costs of books, uniforms, required vaccinations and drug testing, tutoring and review courses, and licensing exam fees. The program also provided some funds for supportive services, such as transportation, medical care, eye exams, utilities, and childcare. In the 2009–2010 school year, due to reductions in funding, Project QUEST started paying 50 percent of tuition for participants, and the participants had to pay the other half through grants, loans, and/or other sources. This change affected 42 percent of QUEST participants in the study. Project QUEST continued to pay the full costs of participants' other college fees, books, tutoring, review courses, and licensing exam fees, and increased the amount of financial assistance for supportive services to offset some of the participants' tuition costs during the transition. Overall, 95 percent of QUEST participants received tuition or other financial support from the program. [Figure 17](#) presents the percentages of participants who received each type of financial support directly from Project QUEST.

*Comprehensive support from a counselor.* Project QUEST career counselors worked with participants from the time they were accepted into the program until they obtained a job. Counselors held weekly group meetings called Vision, Initiative, and Perseverance (or VIP) sessions on the college campuses. These sessions focused on life skills, such as time management, study skills, test-taking techniques, critical thinking, and conflict resolution. During the study period, the sessions shifted to focus more on workforce readiness skills, including writing résumés and cover letters and completing applications. Participants were required to attend the VIP sessions weekly while they were taking classes and to hand in class attendance sheets signed by their instructors in order to continue receiving tuition assistance from the program. The VIP sessions allowed counselors to monitor students' progress in class and check in on how they were doing. Counselors were also available to meet one-on-one with participants to help them solve problems and to refer them to needed supports, such as assistance with utility bills, childcare, food, or tutoring.

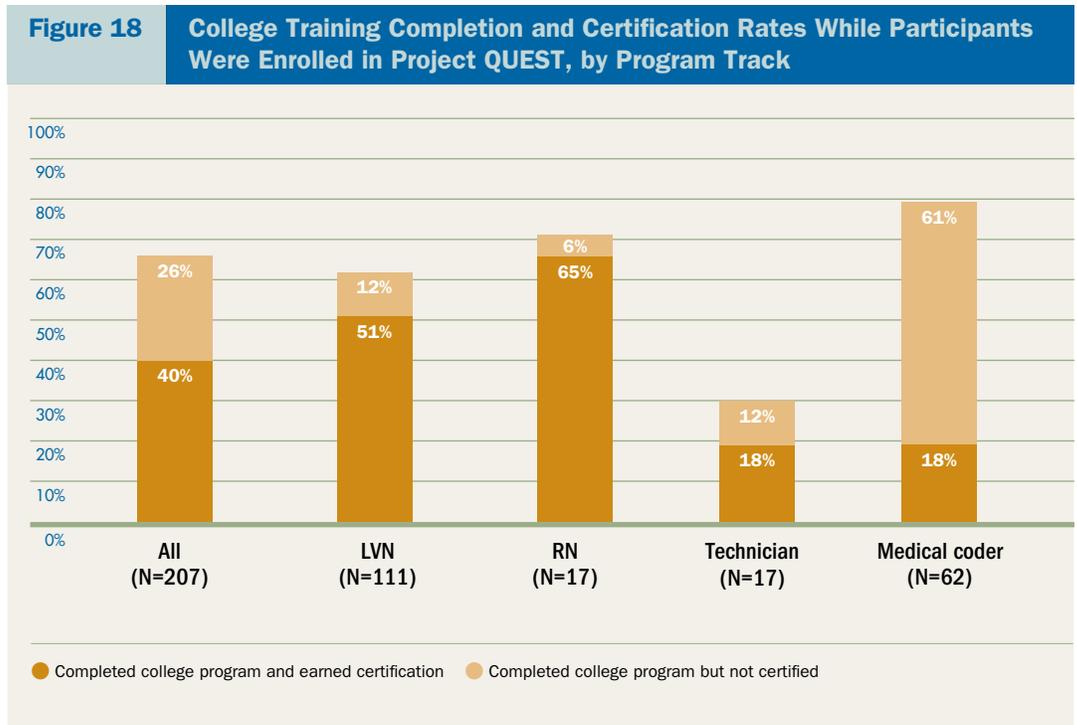
*Job placement assistance.* Project QUEST employed occupational development staff whose role was to maintain relationships with employers to understand the skill sets they required, and to work with the community colleges to modify existing training programs or develop new ones to meet employers' needs. In addition, an employment coordinator helped participants write résumés and cover letters and practice for interviews. Both the career counselors and the employment coordinator provided participants with information about upcoming job fairs and identified employers that were hiring.

**Figure 17** Percent of All QUEST Participants Who Received Each Form of Financial Support from Project QUEST (N=207)



### QUEST Participants' Program Experiences

Overall, 66 percent of QUEST participants completed their college training program and 40 percent earned the targeted health-care certification while receiving support from Project QUEST. As shown in [Figure 18](#), participants in the licensed vocational nurse (LVN) and registered nurse (RN) programs, the fields in which Project QUEST had the most experience at the time of the study, were substantially more likely than participants in the medical records coding and technician programs to both complete their college programs and earn the targeted certifications. At the time of the study, Project QUEST's relationship with the medical records coding program was new and untested.



**Table 2** Average Number of Months Participants Received Support from Project QUEST, among Training Completers (N=136)

	Average total months of support	Average months of support while attending classes	Range of total months of support
Medical records coder	30	16	11 to 53
Licensed vocational nurse (LVN)	31	26	13 to 84
Technicians	40	33	17 to 59
Registered nurse (RN)	42	36	20 to 64
All	32	23	11 to 84

While most participants completed the training, a majority were unable to pass the coding certification exam. The small number of participants enrolled in the technician programs makes it difficult to identify reasons for the low certification rates. Staff believed participants dropped out due to personal reasons or because they decided the targeted job was not a good fit.

Project QUEST supported participants for as long as was necessary for them to complete their college program; the support was not time limited. Among all QUEST participants, the program provided an average of 28 months of support. Among participants who completed their Project QUEST–supported college program, the average length of support was 32 months. This included, on average, 23 months while participants attended classes and nine months while they took certification exams and searched for a job. As presented in [Table 2](#), the average length of support varied by program track. While the medical records coder program was the shortest program

Figure 19

## Average Annual Earnings of the Project QUEST Completers during the 14 Years after Study Enrollment (N=82)



Note: Earnings are reported in constant 2022 dollars. Figures are for all QUEST completers, including those with zero earnings during each period.

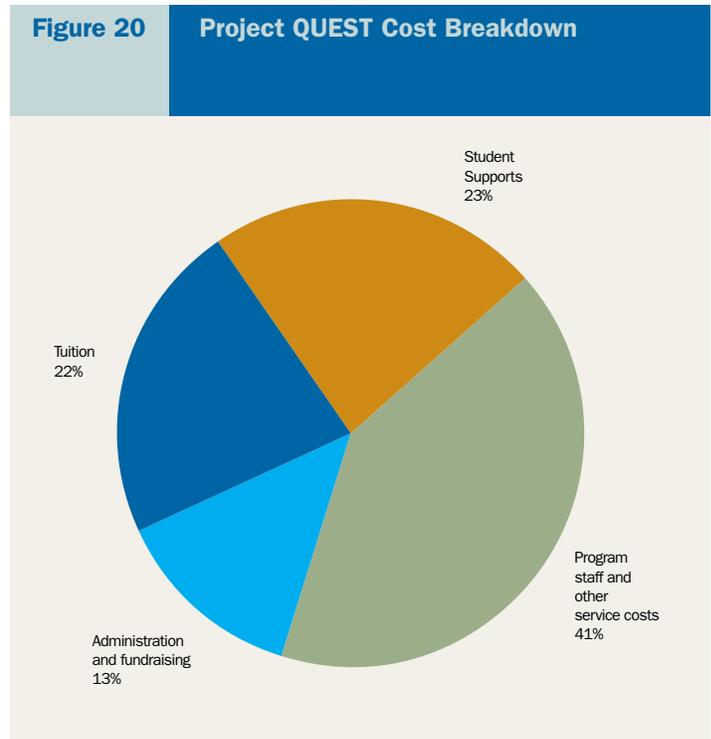
Project QUEST supported, the total months of support reflect the difficulties participants had passing the certification exam and obtaining employment. While the LVN was a one-year certificate program and the RN and technician programs were, for the most part, two-year degree programs, the length of participation reflects that Project QUEST supported participants while they took remedial and prerequisite classes prior to being accepted to these health-care programs.

The Project QUEST “completers”—those who finished their college training program and earned a health-care certification while receiving support from Project QUEST—saw their average earnings quadruple over the 14 years after study enrollment, reaching about \$60,000 annually (Figure 19). In the 14th year after study enrollment, 88 percent of completers were employed, and 66 percent of them worked in the health-care industry.

## Comparison of Benefits and Costs

Project QUEST makes a substantial investment in participants to help them complete postsecondary education and obtain well-paying jobs. To address the question of whether it is worthwhile from a societal perspective to invest in the Project QUEST model, we compared the program's net earnings benefits to its net costs, including both QUEST program costs and the costs of postsecondary education. For comparison purposes, we converted both benefits and costs to 2022 dollars—the final year in the analysis.

The average cost per participant of Project QUEST in 2022 dollars was \$14,381. **Figure 20** presents the cost breakdown. Tuition costs—that is, the portion of participants' community college tuition paid by Project QUEST—accounted for 22 percent of overall costs. The additional supports provided by Project QUEST, such as books, transportation, uniforms, and other supports presented earlier in **Figure 16**, represented 23 percent of costs. Salaries and benefits for program staff, including the career



navigators who supported participants from college enrollment through job placement, and other direct program costs, accounted for 41 percent of QUEST's overall expenses.

We estimated college costs for QUEST participants and control group members using cost data from the Integrated Postsecondary Education Data System from the US Department of Education's National Center for Education Statistics and NSC enrollment data. Details about college cost calculations are included in the appendix. The total costs for QUEST participants include college costs plus the non-tuition costs of the Project QUEST program.

<b>Table 3 Comparison of Average Net Earnings Benefits to Net Costs during the 14 Years after Study Enrollment (2022 Dollars)</b>			
	<b>QUEST group</b>	<b>Control group</b>	<b>Net</b>
<b>Benefits</b>			
Average earnings	\$457,094	\$402,814	\$54,280
<b>Costs</b>			
Average college costs	\$19,923	\$14,824	\$5,099
Average Project QUEST costs (not including tuition)	\$11,145	\$0	\$11,145
Average total costs	\$31,067	\$14,824	\$16,244
<b>Net earnings benefit minus net Project QUEST and college costs (average per participant)</b>			\$38,036

In the 14 years after study enrollment, Project QUEST's average net earnings benefits exceeded average net college and QUEST program costs by \$38,036 per participant (Table 3). The net earnings benefit over the 14 years was \$54,280, while net program and college costs averaged \$16,244. In addition to the costs of the Project QUEST program, the QUEST group's average college costs were higher than those of the control group, due to QUEST participants' higher rates of college enrollment.

The college cost numbers do not include QUEST participants who attended the medical records coder program. We estimate that including those participants' costs would increase the average college costs for the QUEST group by about \$1,200. Members of the control group also would have attended college programs not captured in the NSC data, but we do not have enrollment data for them that could be used to estimate those costs. Another factor to consider in this analysis is the increase in employee fringe benefits associated with the increase in earnings. While these benefits would be partially offset by an increase in work-related expenses, such as commuting and child-care, we expect that Project QUEST's estimated net benefit would increase if these factors were included, using standard methods to estimate employee fringe benefits and work-related costs.

## Conclusions and Implications

The findings demonstrate that Project QUEST continued to make a meaningful and lasting difference in participant's lives 14 years after study enrollment. The program significantly increased college credential attainment and more than doubled the percent of participants who earned a health-care certificate or degree. In the fourth through 14th years after study enrollment, when most QUEST participants had completed their education, the program's impact on annual earnings averaged \$5,300 per

year. Project QUEST has achieved the longest sustained earnings impacts ever found in a US workforce development program. The program's net earnings benefits alone substantially outweighed its costs, even after taking the costs of college into account.

Unlike other programs that have demonstrated large earnings impacts, Project QUEST is primarily supported through public funding. During the study—and in more recent years—the program received substantial support through the City of San Antonio's General Fund as well as General Support funds from Bexar County. At the state level, Project QUEST received support through Texas Workforce Commission grant programs aimed at helping adults obtain industry-recognized credentials in high-demand occupations. As such, Project QUEST offers a model for how cities, counties, and states can fund strategies to help residents obtain postsecondary credentials and well-paying jobs.

Project QUEST's experience offers lessons for practitioners, policymakers, and others in the workforce development and postsecondary education fields interested in investing in low-income adults to help them access well-paying careers. The key implications of the findings follow.

***Recruiting individuals who can benefit from the set of services the program offers and who are unlikely to be successful on their own***

For the study, Project QUEST recruited only adults who were not already in college when they applied to the program. We do not have direct evidence comparing adults who were enrolled in college and those who were not from this evaluation. However, a rigorous evaluation of Project QUEST's sister organization, the Valley Initiative for Development and Advancement (VIDA), found a much larger impact on earning a college credential for participants who were not enrolled in college than for those who were already in college when they applied to VIDA—an increase of 23 versus 6 percentage points. Those already enrolled in college, some of whom had more than a year of college credits when they applied to VIDA, were likely to be successful on

their own without the program's support. Project QUEST's education impacts were of a much greater magnitude than VIDA's, particularly its impacts on earning a health-care credential.

QUEST's overall impact was driven by participants who were the least likely to succeed on their own. Within the population of adults not enrolled in college, Project QUEST had the greatest impact on earnings for participants who were ages 25 and older, and particularly those ages 35 and older. The program also had large earnings impacts for GED holders and those who had attended college in the past but did not earn a degree. On the other hand, Project QUEST had no impact on the earnings of participants ages 18 to 24 or among those who had earned a regular high school diploma and had no previous college experience.

The findings indicate that the set of supports Project QUEST offered was particularly suited to helping adults ages 25 and older who were not in college but were interested in improving their skills to obtain better-paying jobs. While the target population will differ across program models, the implications are that program operators need to assess both whether program applicants' needs will be addressed by the program's services and the likelihood that applicants will be successful on their own without the program's supports.

***Developing expertise in a sector and supporting the completion of credentials in that sector that have evidence of high labor market value***

When the study began, Project QUEST had been working in the health-care sector for 14 years and had developed expertise in several occupations that were in demand and paid hourly wages far above what participants were earning when they enrolled. Project QUEST developed relationships with local employers, created advisory boards that informed them of industry needs, and worked with local community colleges to modify curricula to meet employers' needs. Project QUEST involved employers in the program through mock interviews, mentoring, and job fairs. After years of producing successful graduates, particularly licensed vocational nurses and registered nurses, area employers saw the program as a trusted source of workers.

On the other hand, supporting participants in pursuing new credential programs in an occupation in which Project QUEST was inexperienced proved ineffective. In order to bolster recruitment, late in the study enrollment period, Project QUEST recruited participants in a shorter-term medical records coder training that was new and untested, and relatively few participants were able to earn their certifications and obtain the targeted jobs.

Project QUEST's experience has implications for both practitioners and researchers. Organizations starting a sector-based training program need time to develop relationships and expertise in the sector to ensure that the training they support meets employers' needs and provides graduates access to the targeted well-paying jobs. Organizations need time to become seen by employers as a trusted source of workers, particularly in fields where employers may otherwise prefer to hire individuals with

four-year degrees. Similarly, randomized controlled trial studies of sector-based programs that examine earnings impacts soon after programs start operating are not likely to offer a true test of program effectiveness.

***Providing long-term, flexible, and personal support to help low-income adults earn credentials with high labor market value***

These results stand in contrast to those of numerous studies of workforce development programs that supported low-income adults in completing short-term credential programs to obtain entry-level jobs, such as certified nursing assistant training. An assumption of these programs is that once participants are working in entry-level jobs in the field, they will return on their own to obtain further education in order to access higher-skilled, better-paying jobs. However, RCT studies of these programs have found that they had no impact on participants' earnings.

During the study, Project QUEST played the long game, providing participants flexible and personal support for as long as they needed—up to seven years—to complete the targeted credentials and obtain higher-skilled, well-paying jobs. The average length of support was 32 months, in contrast to most workforce development programs, which only support job seekers for a few weeks or months. When they applied to the program, most QUEST participants were working in low-wage jobs outside of the health-care field, had been out of school for more than a year, and needed to improve their basic math and reading skills in order to enroll in the targeted health-care programs. They faced numerous challenges to completing the rigorous health-care trainings that the program supported. Project QUEST provided remedial math and reading instruction, personal support from a counselor, financial assistance to cover tuition and other education-related expenses, and emergency financial support for gas, rent, and child-care. The program had staff dedicated to assisting participants with their job search, helping them with résumés and interviews, and providing job leads.

Project QUEST has had the ongoing political and community support of COPS and Metro Alliance, two church-based community organizing groups that helped launch the program in 1992 and have worked to ensure that Project QUEST has ongoing financial support. Project QUEST's strategies can be replicated in other communities. Affiliated organizing groups have created similar organizations across the Southwest, and other workforce development organizations have replicated the model in additional locations. Nonprofit organizations can serve as intermediaries connecting residents, community colleges, and employers in growing sector of local economies. The key is considerable, reliable financial support for high-performing organizations dedicated to making a substantial difference in participants' lives.

## Endnotes

1. For an early discussion of sectoral strategies, see: Clark, Peggy and Steven L. Dawson, *Jobs and the Urban Poor: Privately Initiated Sectoral Strategies* (Washington, DC: The Aspen Institute, 1995).
2. During the first three years of the study, which covered the period when all study participants enrolled and at least their first year in the program, QUEST paid 100 percent of participants' tuition. After this time, QUEST reduced payments to 50 percent of participants' tuition, but it continued to cover 100 percent of fees, as well as the costs of books and other education-related expenses.
3. For program impact reports, see: Roder, Anne and Mark Elliott, *Eleven Year Gains: Project QUEST's Investment Continues to Pay Dividends* (New York: Economic Mobility Corporation, 2021), [https://economicmobilitycorp.org/wp-content/uploads/2021/09/Mobility\\_Eleven-Year-Gains.pdf](https://economicmobilitycorp.org/wp-content/uploads/2021/09/Mobility_Eleven-Year-Gains.pdf); Roder, Anne and Mark Elliott, *Nine Year Gains: Project QUEST's Continuing Impact* (New York: Economic Mobility Corporation, 2019), [https://economicmobilitycorp.org/wp-content/uploads/2019/04/NineYearGains\\_web.pdf](https://economicmobilitycorp.org/wp-content/uploads/2019/04/NineYearGains_web.pdf); Roder, Anne and Mark Elliott, *Nine Year Education Gains: Project QUEST's Impact on Student Success* (New York: Economic Mobility Corporation, 2020), [https://economicmobilitycorp.org/wp-content/uploads/2020/06/Nine\\_Year\\_Education\\_Gains.pdf](https://economicmobilitycorp.org/wp-content/uploads/2020/06/Nine_Year_Education_Gains.pdf); and Elliott, Mark and Anne Roder, *Escalating Gains: Project QUEST's Sectoral Strategy Pays Off* (New York: Economic Mobility Corporation, 2017), [https://economicmobilitycorp.org/wp-content/uploads/2018/01/Escalating-Gains\\_WEB.pdf](https://economicmobilitycorp.org/wp-content/uploads/2018/01/Escalating-Gains_WEB.pdf).
4. For more information about the program model and participants, see: Roder, Anne and Mark Elliott, *Escalating Gains: The Elements of Project QUEST's Success* (New York: Economic Mobility Corporation, 2018), <https://economicmobilitycorp.org/wp-content/uploads/2018/06/Elements-of-Project-QUESTs-Success.pdf>.
5. Rolston, Howard, and Douglas Walton, *Valley Initiative for Development and Advancement (VIDA): Six-Year Impact Report* (Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, US Department of Health and Human Services, 2022).
6. See: Juras, Randall, and Larry Buron, *Summary and Insights from the Ten PACE and HPOG 1.0 Job Training Evaluations: Three-Year Cross-Site Report* (Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, US Department of Health and Human Services, 2021).
7. Project QUEST's sister organizations include Capital IDEA in Austin, Texas; Project ARRIBA in El Paso, Texas; VIDA in Mercedes, Texas; and JobPath in Tucson, Arizona.

## Appendix

### Study Design and Final Sample

The evaluation of Project QUEST uses a randomized controlled trial design to assess its impacts on individuals' outcomes. To evaluate program impacts, this report relies on data from a baseline survey conducted at the time of study enrollment, administrative data on earnings from the Texas Workforce Commission for the two years before and 14 years after study enrollment, and National Student Clearinghouse (NSC) data on postsecondary enrollment and completion during the 14 years after study enrollment. We used data from the baseline survey to examine the characteristics of treatment and control group members in the final sample and to control for any differences in characteristics between the groups in the analysis of program impacts. We also analyzed data from Project QUEST on study participants' anticipated health-care program tracks, program outcomes for members of the treatment group, and program costs.

Project QUEST staff completed the program's intake and screening process to identify eligible candidates and obtained their written consent to take part in the study. Staff then sent their contact information to a survey firm, the Institute for Survey Research (ISR) at Temple University, which completed the baseline survey and conducted random assignment. Individuals were blocked according to their intended program track (i.e., registered nursing, licensed vocational nursing, medical records coding, and the various technician tracks), and ISR randomly assigned 50 percent of study participants to the treatment group and 50 percent to the control group within these blocks. Between April 2006 and October 2008, 410 individuals enrolled in the study, of whom 207 were randomly assigned to the treatment group and 203 to the control group. QUEST staff invited those assigned to the treatment group to participate in the program and told those assigned to the control group that they would not be receiving Project QUEST services but could independently enroll in college or training or seek other services.

**Table A1** presents the baseline characteristics of the full sample of treatment and control group members. There were no significant differences between the groups in key characteristics, including gender, age, highest degree earned, annual earnings, housing status, marital status, and having any children under age 18. Treatment group members were somewhat less likely than control group members to be Latino and more likely than control group members to have a valid driver's license and live in public or subsidized housing. Some differences are likely to occur by chance, particularly given the number of characteristics tested.

<b>Table A1 Comparison of the Baseline Characteristics of Treatment and Control Group Members in the Project QUEST Randomized Controlled Trial</b>			
	Treatment group (N=207)	Control group (N=203)	p-value
<b>Gender</b>			.705
Female	88.9%	87.7%	
Male	11.1%	12.3%	
<b>Age</b>			.633
Age 18 to 24	29.5%	32.0%	
Age 25 to 34	46.4%	44.3%	
Age 35 to 44	15.5%	17.7%	
Age 45 to 64	8.7%	5.9%	
<b>Race/ethnicity</b>			.058
Latino	69.1%	79.3%	
Black	16.9%	10.8%	
White	12.1%	6.9%	
Other	1.9%	3.0%	
<b>U.S. immigrant</b>	9.7%	5.4%	.164
<b>Highest degree earned</b>			.278
GED	24.6%	25.6%	
High school diploma	69.1%	71.4%	
College degree (Associate's or Bachelor's)	6.3%	3.0%	
<b>Had prior health-care certificates or licenses</b>			.525
Yes	30.4%	27.6%	
No	69.6%	72.4%	
<b>Housing status</b>			.128
Own	18.4%	14.3%	
Rent	63.3%	58.6%	
Live rent-free	17.4%	26.6%	
Homeless	1.0%	0.5%	
<b>Living in public or subsidized housing</b>			.061
Yes	15.5%	9.4%	
No	84.5%	90.6%	
<b>Had a valid driver's license</b>	92.3%	86.2%	.047
<b>Self-rated health status</b>			.162
Excellent	48.3%	57.6%	
Good	44.0%	35.5%	
Fair or poor	7.7%	6.9%	
<b>Marital status</b>			.412
Currently married	30.4%	24.6%	
Formerly married	25.1%	28.1%	
Never married	44.4%	47.3%	
<b>Had any children under age 18 in household</b>			.407
Yes	67.2%	70.9%	
No	32.8%	29.1%	
<b>Average annual earnings in the two years prior to enrollment based on state administrative data (including zero earnings)</b>	\$21,976	\$20,116	.292

## Targeted Health-Care Career Tracks

Table A2 provides information about the program length and course requirements for completing each of the health-care career tracks supported by Project QUEST during the study and the type of credential conferred.

<b>Table A2</b>			
<b>Program Requirements and Credentials Earned for Project QUEST's Targeted Health-Care Career Tracks</b>			
<b>Track</b>	<b>Number of study participants</b>	<b>Program length and course requirements</b>	<b>Credential</b>
Medical records coder	101	7-month program	Continuing education certificate of completion
Licensed vocational nurse	243	1-year program with 3 prerequisite classes	Certificate Level 2/II
Registered nurse	30	2-year program with 7 prerequisite classes	Associate of Applied Science
Radiography, respiratory therapy, and sonography technicians	26	2-year programs with 3 prerequisite classes	Associate of Applied Science
Surgical technician	10	1-year program with 6 prerequisite classes	Associate of Applied Science

## Analysis

The study uses an intent-to-treat analysis framework to assess program impacts; that is, we examined differences in the outcomes of all participants randomly assigned to the Project QUEST and control groups. We estimated impacts using multivariate regression analysis, and we report regression-adjusted results. The regression models included the baseline explanatory variables in Table A1 to control for any differences between the treatment and control group members. The models also included a binary variable for being a treatment group member and an index variable indicating study participants' intended health-care program track. Tables A3 and A4 provide the impact estimates with standard errors and p-values.

**Table A3**      **Employment and Earnings Regression-Adjusted Impact Estimates with Standard Errors and P-values**

	Impact	Std. Err.	p-value
<b>Average annual earnings in each year after study enrollment (in constant 2022 dollars)</b>			
Year 1	-\$3,336***	\$1,104	0.003
Year 2	-\$3,290**	\$1,421	0.021
Year 3	\$2,316	\$1,948	0.235
Year 4	\$5,075**	\$2,182	0.021
Year 5	\$4,696**	\$2,386	0.050
Year 6	\$6,607***	\$2,448	0.007
Year 7	\$3,026	\$2,593	0.244
Year 8	\$3,185	\$2,632	0.227
Year 9	\$6,574**	\$2,771	0.018
Year 10	\$5,895**	\$2,963	0.047
Year 11	\$5,300*	\$3,121	0.090
Year 12	\$5,448*	\$3,184	0.088
Year 13	\$6,231	\$3,797	0.102
Year 14	\$6,554	\$4,059	0.107
<b>Average total earnings over the 14 years after study enrollment (in constant 2022 dollars)</b>	\$54,280*	\$27,875	0.052
<b>Percent employed at any time during each year after study enrollment</b>			
Year 1	-2.6%	3.5%	0.463
Year 2	-2.9%	3.8%	0.450
Year 3	3.0%	3.9%	0.444
Year 4	2.1%	3.8%	0.580
Year 5	6.3%	3.9%	0.106
Year 6	3.1%	3.7%	0.395
Year 7	-1.0%	3.9%	0.795
Year 8	1.8%	3.6%	0.629
Year 9	4.9%	3.7%	0.181
Year 10	8.9%**	3.8%	0.021
Year 11	9.7%**	3.9%	0.015
Year 12	5.4%	4.1%	0.189
Year 13	5.2%	4.1%	0.207
Year 14	9.1%**	4.1%	0.027

**Table A3**  
*(continued)***Employment and Earnings Regression-Adjusted Impact Estimates  
Standard Errors and P-values**

	Impact	Std. Err.	p-value
<b>Percent employed in the health-care industry during each year after study enrollment</b>			
Year 1	-0.9%	3.6%	0.802
Year 2	0.4%	4.2%	0.919
Year 3	4.0%	4.6%	0.376
Year 4	7.6%	4.7%	0.108
Year 5	13.5%***	4.7%	0.004
Year 6	12.5%***	4.6%	0.007
Year 7	7.1%	4.6%	0.124
Year 8	3.9%	4.6%	0.399
Year 9	7.1%	4.7%	0.131
Year 10	7.3%	4.6%	0.115
Year 11	11.2%**	4.5%	0.015
Year 12	11.4%**	4.6%	0.014
Year 13	8.0%*	4.7%	0.089
Year 14	7.7%*	4.6%	0.096
<b>Percent employed in the health-care industry at any time during the 14 years after study enrollment</b>			
	6.4%	4.4%	0.141

<b>Table A4</b>		<b>Postsecondary Education Regression-Adjusted Impact Estimates with Standard Errors and P-values</b>		
		Impact	Std. Err.	p-value
<b>Percent enrolled in NSC-covered postsecondary education at any time during each year after study enrollment</b>				
Year 1		22.6%***	4.3%	0.000
Year 2		11.9%**	4.6%	0.010
Year 3		12.4%***	4.6%	0.008
Year 4		4.7%	4.4%	0.290
Year 5		1.9%	4.1%	0.637
Year 6		-0.1%	3.4%	0.979
Year 7		-2.8%	3.6%	0.441
Year 8		2.7%	3.5%	0.444
Year 9		-3.9%	3.2%	0.216
Year 10		-3.1%	3.2%	0.330
Year 11		-1.0%	3.1%	0.761
Year 12		5.1%	3.4%	0.131
Year 13		4.6%	3.2%	0.157
Year 14		5.3%*	3.1%	0.088
<b>Percent enrolled in NSC-covered postsecondary education at any time during the 14 years after study enrollment</b>		9.9%**	3.9%	0.012
<b>Percent who earned NSC-covered postsecondary credentials during the 14 years after study enrollment</b>				
Any credential		14.4%***	4.4%	0.001
Certificate or diploma		12.8%***	3.8%	0.001
Associate's degree		0.7%	3.7%	0.847
Bachelor's degree		-3.1%	2.5%	0.224
Any college degree		0.3%	3.8%	0.935
<b>Percent who earned NSC-covered health-care credentials during the 14 years after study enrollment</b>				
Any health-care credential		21.6%***	4.1%	0.000
Any health-care certificate or diploma		14.5%***	3.7%	0.000
Any health-care college degree		6.4%*	3.4%	0.068
Any nursing credential		22.0%***	4.0%	0.000

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## Calculation of College Costs

We estimated college costs using cost data from the Integrated Postsecondary Education Data System (IPEDS) from the U.S. Department of Education's National Center for Education Statistics as well as enrollment data from NSC. Total college expenses are the core expenses reported to IPEDS for each year of the study. Core expenses for public institutions include instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, depreciation, scholarships and fellowships, interest, and other operating and nonoperating expenses. Core expenses for private, not-for-profit and for-profit institutions include instruction, research, public service, academic support, student services, institutional support, net grant aid to students, and other expenses. For all institutions, core expenses exclude expenses for auxiliary enterprises (e.g., bookstores, dormitories), hospitals, and independent operations.

We divided total expenses by the 12-month FTE enrollment for each year to produce annual expense per FTE amounts for each school and project year. For the four Alamo District Schools in the data, due to a change in reporting that affected the FTE calculation during this period, we divided total expenses by the total number of credit hours and multiplied the per-credit rate by 30 to produce the annual expense per FTE estimates. We then adjusted the annual expense amounts for inflation, expressed as 2022 dollars.

We used the annual expense per FTE amounts to calculate the total college costs for each participant over the 14 years after random assignment using the NSC enrollment data. The annual expense per FTE amounts were discounted if a participant was only in school for part of the year and/or was enrolled less than full-time (i.e., if the NSC data indicated the student was enrolled three-quarter-time, we used 75 percent of the annual expense per FTE; if half-time, we used 50 percent; if less than half-time, we used 25 percent).



**M O B I L I T Y**

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