

Nine Year Gains:

Project QUEST's Continuing Impact

Anne Roder and Mark Elliott
Economic Mobility Corporation

April 2019



Nine Year Gains: Project QUEST's Continuing Impact

Anne Roder and Mark Elliott
Economic Mobility Corporation

April 2019



M O B I L I T Y

Board of Directors

Cynthia Shoss *Chair*

Plinio Ayala

Harry J. Holzer

Mary Pena

Russ Pomeranz

Mark Elliott

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.

Mail:

Economic Mobility Corporation, Inc.
50 Broadway, Suite 1604
New York, NY 10004

Telephone:

212.280.6975

Email:

info@economicmobilitycorp.org

Acknowledgments

Funding for the extension of the Project QUEST evaluation came from Arnold Ventures. We thank the Evidence-Based Policy team for its support of this effort, particularly Amanda Moderson-Kox. We are also grateful to Howard Rolston for helping make this happen. Support for the initial six-year study came principally from the Charles Stewart Mott Foundation, with additional support from the Annie E. Casey Foundation and the US Department of Health and Human Services through a contract with Abt Associates.

We thank the Project QUEST staff, participants, and COPS and Metro Alliance leaders for taking part in the study.

Many people contributed to this report. We thank Heath Prince and the staff at the Ray Marshall Center at The University of Texas at Austin for working with us. Ashweeta Patnaik, Greg Cumpton, and Patty Rodriguez accessed and expertly analyzed the data for this report. Harry Holzer of Georgetown University provided useful comments on a draft of the report. Caitlin van Dusen edited the report, and Penelope Malish designed the publication.

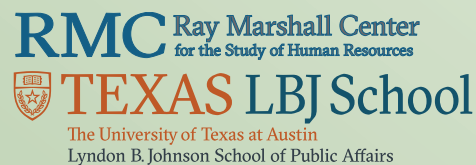


Table of Contents

1	Summary
2	Introduction
4	Project QUEST's Impacts
10	QUEST Participants' Experiences
11	Program Costs
12	Conclusions
14	Endnotes
15	Appendix

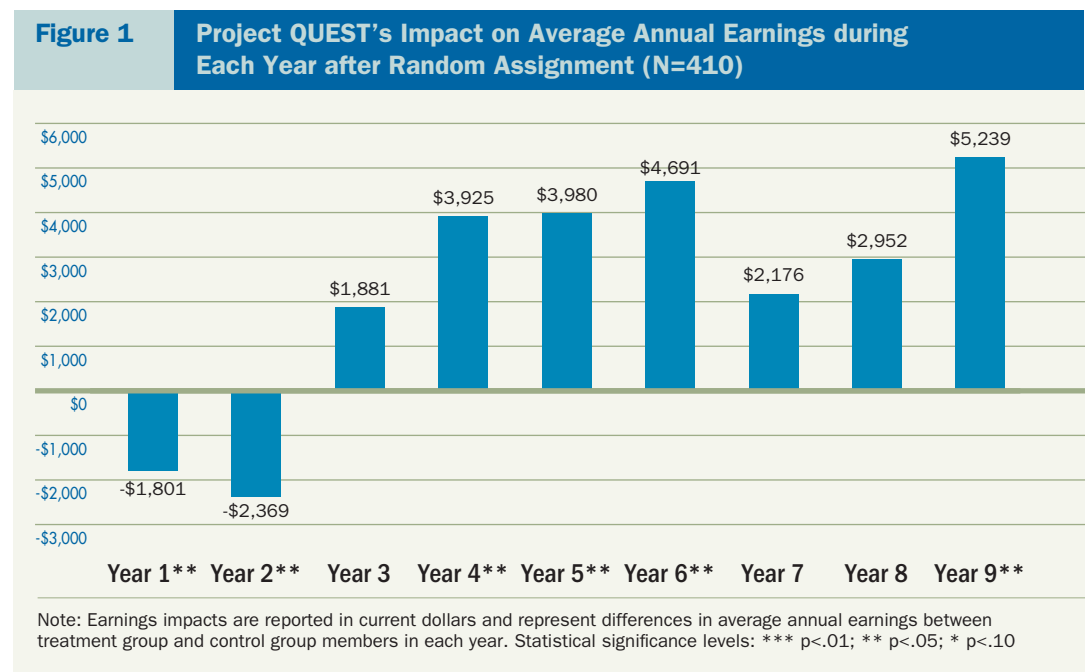
Figures

1	Figure 1: Project QUEST's Impact on Average Annual Earnings during Each Year after Random Assignment (N=410)
3	Figure 2: Study Participants' Intended Health-Care Occupation at Program Entry (N=410)
3	Figure 3: Study Participants' Characteristics at Program Entry (N=410)
5	Figure 4: Average Annual Earnings during the Nine Years after Random Assignment among All Study Participants
5	Figure 5: Project QUEST's Impact on Average Annual Earnings during Each Year after Random Assignment by Data Source
6	Figure 6: Average Earnings in Each Quarter during the Nine Years after Random Assignment
6	Figure 7: Percent Employed in Each Quarter during the Nine Years after Random Assignment
7	Figure 8: Percent Employed in the Health-Care Industry during Each Year after Random Assignment
8	Figure 9: Project QUEST's Impact on Average Annual Earnings in Year Nine, by Age at Program Entry
8	Figure 10: Project QUEST's Impact on Average Annual Earnings in Year Nine, by Education at Program Entry
9	Figure 11: Project QUEST's Impact on Average Annual Earnings in Year Nine, by Gender
9	Figure 12: Project QUEST's Impact on Average Annual Earnings in Year Nine, by Race
9	Figure 13: Project QUEST's Impact on Average Annual Earnings in Year Nine, by Marital Status at Program Entry
9	Figure 14: Project QUEST's Impact on Average Annual Earnings in Year Nine, by Parenting Status at Program Entry
10	Figure 15: Training Completion and Certification Rates While Participants Were Enrolled in Project QUEST, by Program Track
11	Figure 16: Average Annual Earnings of the Project QUEST Completers during the Nine Years after Random Assignment (N=82)
11	Figure 17: Project QUEST's Costs (Average \$10,501 Per Participant)
16	Figure A1: Comparison of the Baseline Characteristics of Treatment and Control Group Members in the Project QUEST Randomized Controlled Trial
17	Figure A2: Average Annual Earnings during the Nine Years after Random Assignment among All Study Participants (2017 Dollars)
17	Figure A3: Project QUEST's Impact on Average Annual Earnings during Each Year after Random Assignment (2017 Dollars; N=410)
18	Figure A4: Average Annual Earnings of the Project QUEST Completers during the Nine Years after Random Assignment (2017 Dollars; N=82)

Summary

Project QUEST, located in San Antonio, Texas, provides comprehensive support to help low-income adults earn post-secondary credentials and access well-paying jobs in strong sectors of the local economy. Mobility conducted a randomized controlled trial (RCT) study of Project QUEST to assess its impacts on the earnings of individuals seeking training for health-care jobs. We previously reported that Project QUEST had large, positive impacts on participants' earnings six years after study enrollment. We were interested in assessing the program's longer-term impacts on career advancement. With support from Arnold Ventures, we contracted with the Ray Marshall Center at The University of Texas at Austin to extend the study to nine years after study enrollment, using state administrative data on earnings.

As shown in [Figure 1](#), we found that QUEST participants earned substantially more than control group members in the third through ninth years after random assignment.¹ Project QUEST's impact on annual earnings grew to \$5,239 in year nine—a difference that was both statistically significant and the largest of any year.



Project QUEST's results provide strong evidence to the workforce development and post-secondary education fields of the potential of sectoral strategies and comprehensive efforts to increase community college completion among low-income adults. While prior studies of sector-based training have found positive earnings impacts, they followed participants for only two to three years and, therefore, did not address impacts on career advancement. Questions remained about whether impacts would fade over time as individuals changed jobs and sectors. Our findings demonstrate that Project QUEST had a large, positive impact on participants' career advancement over a nine-year period. This brief presents the main findings on Project QUEST's nine-year impacts on employment and earnings. A future report will include findings on educational attainment and public benefits receipt.

Introduction

Employers frequently report difficulties finding workers to fill middle-skill jobs—that is, jobs that require some post-secondary education or training and involve the performance of more-skilled technical, administrative, or communicative tasks.² At the same time, low-wage workers face substantial barriers to completing post-secondary education and training programs that can enable them to access well-paying jobs. In the early 1990s, two community-organizing groups in San Antonio, COPS (Communities Organized for Public Service) and Metro Alliance, saw that local employers were filling well-paying jobs with workers recruited from outside the metropolitan area, while local residents struggled in low-wage jobs that did not 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 provides comprehensive support and resources to help individuals complete occupational training programs at community colleges and other training providers, pass certification exams, and obtain jobs. Project QUEST's services include the following:

- financial assistance to cover tuition and fees for classes, books, transportation, uniforms, licensing exams, and tutoring³
- 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, childcare, food, and other services as well as direct financial assistance with other supports on an as-needed basis
- weekly meetings that focus 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 an RCT study to assess its impacts on participants' earnings. It was initially part of a Public/Private Ventures study of sector-based training programs that included Per Scholas, Jewish Vocational Service Boston, and the Wisconsin Regional Training Partnership. Between April 2006 and October 2008, 410 individuals enrolled in the study, of whom 207 were assigned to the treatment group, which could receive the Project QUEST services, and 203 to the control group, which could not. Because individuals were randomly assigned, at the time of study enrollment the two groups were equivalent 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. In this report, we refer to all members of the treatment group as the QUEST participants or the QUEST group.

The evaluation focused on individuals who were pursuing training for health-care jobs. Most study participants (85 percent) were seeking to enter non-degree certificate programs to become licensed vocational nurses (LVNs) or medical records coders (**Figure 2**). Another 15 percent sought to enroll in programs that would lead to an associate's degree, including registered nursing and radiography, respiratory, sonography, and surgical technician programs. During the study enrollment period, Project QUEST sought to recruit individuals who were interested in but not currently attending college classes. This included those who needed to improve their basic reading and math skills before they could enroll in college-level classes as well as those who were ready to enroll. Most study participants were female, Latino, and had children under age 18 at the time of study enrollment (**Figure 3**). Most (69 percent) were between the ages of 25 and 64—older than traditional college-age students. Forty-five percent had previously attended college but had not attained a degree. While 84 percent had worked in the previous year, average annual earnings among all participants were only \$11,722.

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

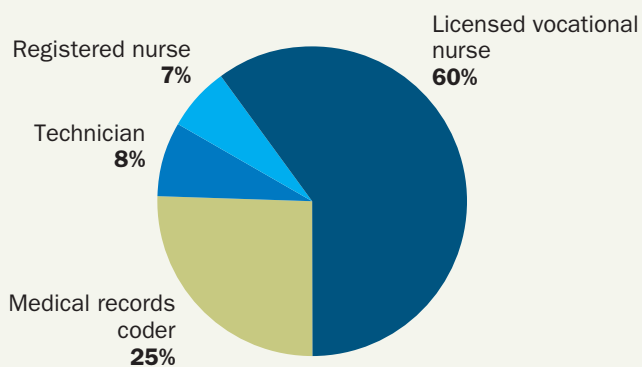


Figure 3 Study Participants' Characteristics at Program Entry (N=410)

Female	88.3%
Latino	74.1%
African American	13.9%
White	9.5%
Average age	30
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%
Had previously attended college but did not earn a degree	44.9%
Was employed at any time in the past year	84.4%
Average annual earnings in the past year	\$11,722

In 2017, we reported on Project QUEST's impacts six years after study enrollment.⁴ The six-year study relied on data from a baseline survey conducted at the time of study enrollment and follow-up surveys conducted two and six years after study enrollment. The response rate on the six-year follow-up survey was 83.7 percent for a final sample of 343 study participants.

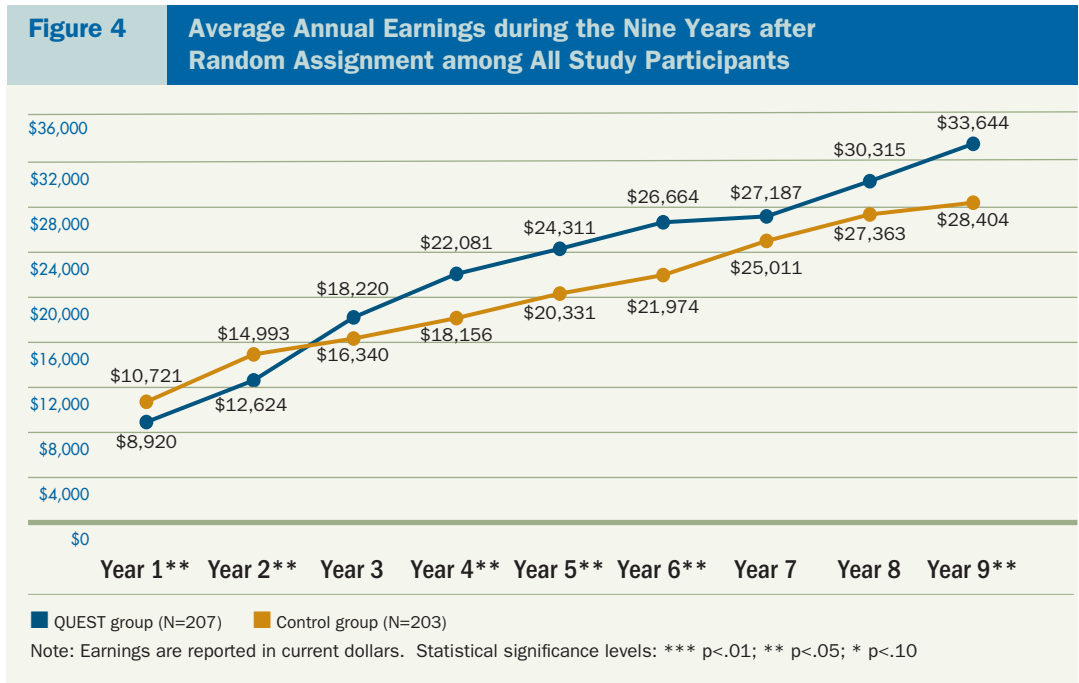
We found that Project QUEST had a large impact on participants' annual earnings—an impact that grew from an average of \$2,286 in the third year after random assignment to \$5,080 in the sixth year. Additionally, QUEST participants worked more consistently and in higher-wage jobs than control group members; were more likely than control group members to earn vocational certificates or licenses, particularly in the health-care field; and reported fewer financial difficulties than control group members at the end of the follow-up period. Further details about the Project QUEST model, participants, and the program's six-year impacts can be found in our earlier reports from the study.

Mobility received support from Arnold Ventures to extend the study and assess Project QUEST's impacts on participants' earnings—the primary measure of the program's success—as well as educational attainment and public benefits receipt during the nine years after random assignment. To assess program impacts, this phase of the study relies on administrative data records for the full sample of 410 study participants. Mobility contracted with the Ray Marshall Center at The University of Texas at Austin to access and analyze the data. The results reported in this brief are based on Texas Workforce Commission data on quarterly earnings as reported by employers for the administration of the state's unemployment insurance program.

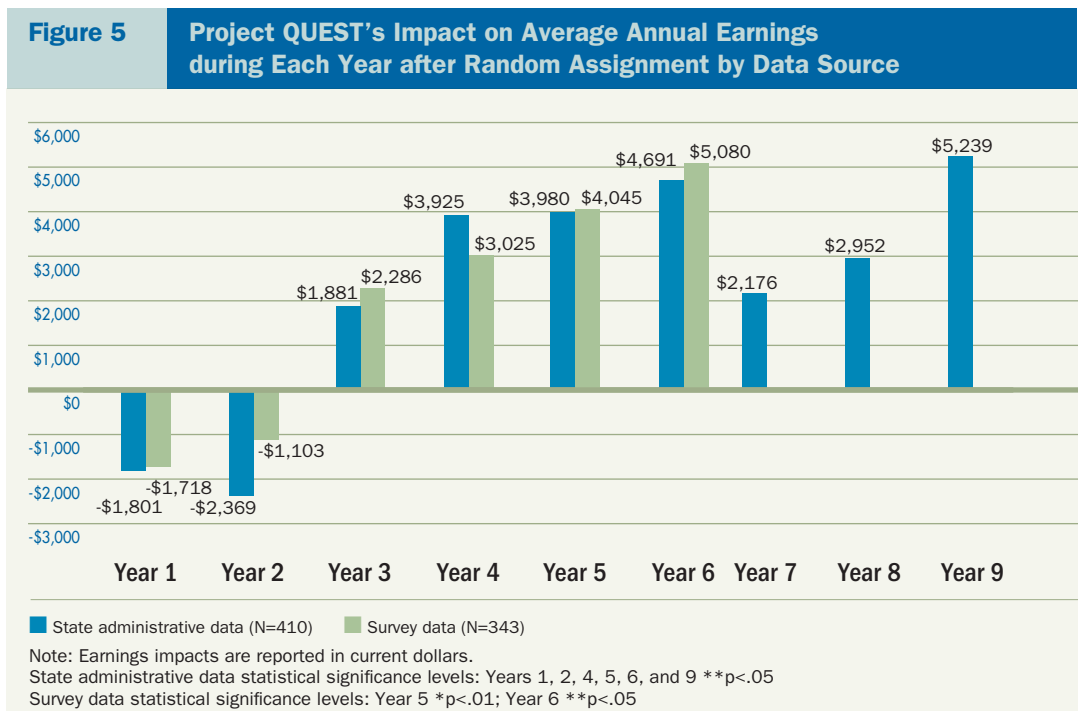
Project QUEST's Impacts

Project QUEST's mission is to increase San Antonio's residents' earnings by helping them gain the skills needed to access well-paying careers. As shown in [Figure 4](#), QUEST participants earned substantially more than control group members in the third through ninth years after random assignment. The earnings differences were statistically significant in years four through six after random assignment. The difference narrowed in year seven but began to grow again in year eight. Project QUEST's impact on annual earnings grew to \$5,239 in year nine—a difference that was both statistically significant and the largest of any year.

Across the nine years after random assignment, QUEST participants earned an average of \$19,877 more than control group members.⁵ This includes the first two years after study enrollment, when QUEST participants' earnings were lower than those of control group members because many either reduced their hours or stopped working to attend college.



The earnings impact estimates based on the state administrative data for years one through six after random assignment closely mirror the results derived from the six-year follow-up survey (Figure 5). With the full sample of 410 participants, the large differences found in years four through six after random assignment were statistically significant. This validation of the previously reported survey findings is important, as prior research has shown that earnings are usually higher in survey data than in administrative data, and evaluations using survey data usually find greater impacts.⁶



As shown in **Figures 6 and 7**, QUEST participants' earnings surpassed those of control group members in each quarter from quarter 10 through quarter 36, even when employment rates for the two groups were similar. Additionally, QUEST participants were more consistently employed over time, with employment rates at or near 80 percent from quarter 19 onward.

Figure 6 Average Earnings in Each Quarter during the Nine Years after Random Assignment

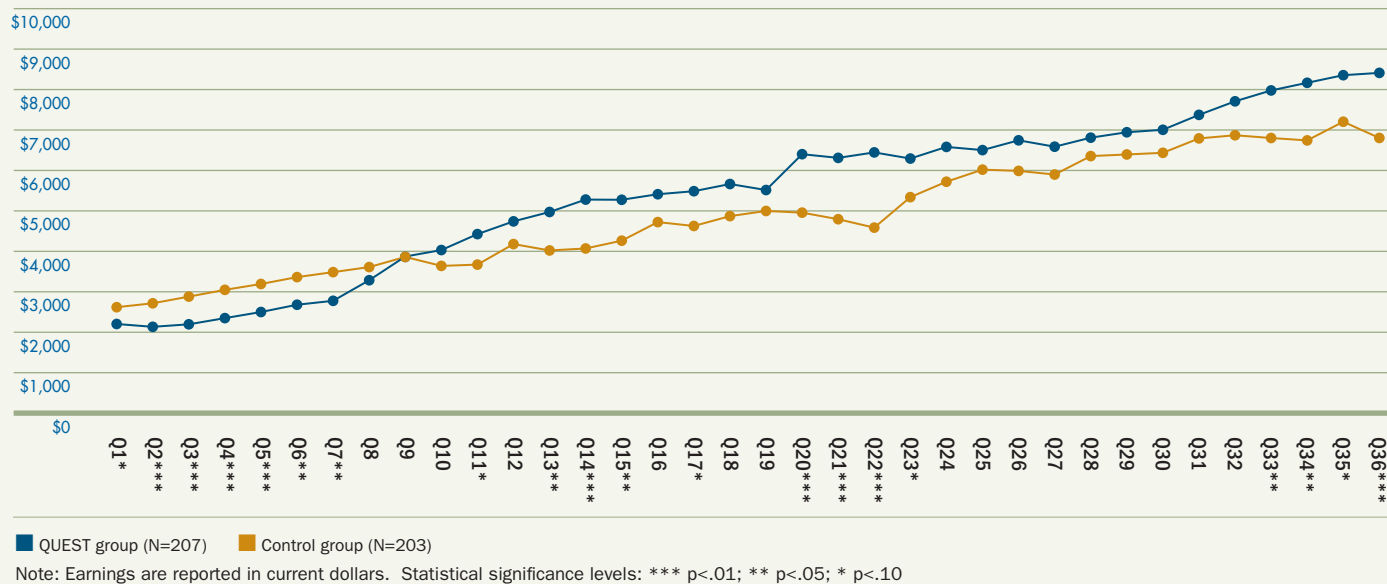
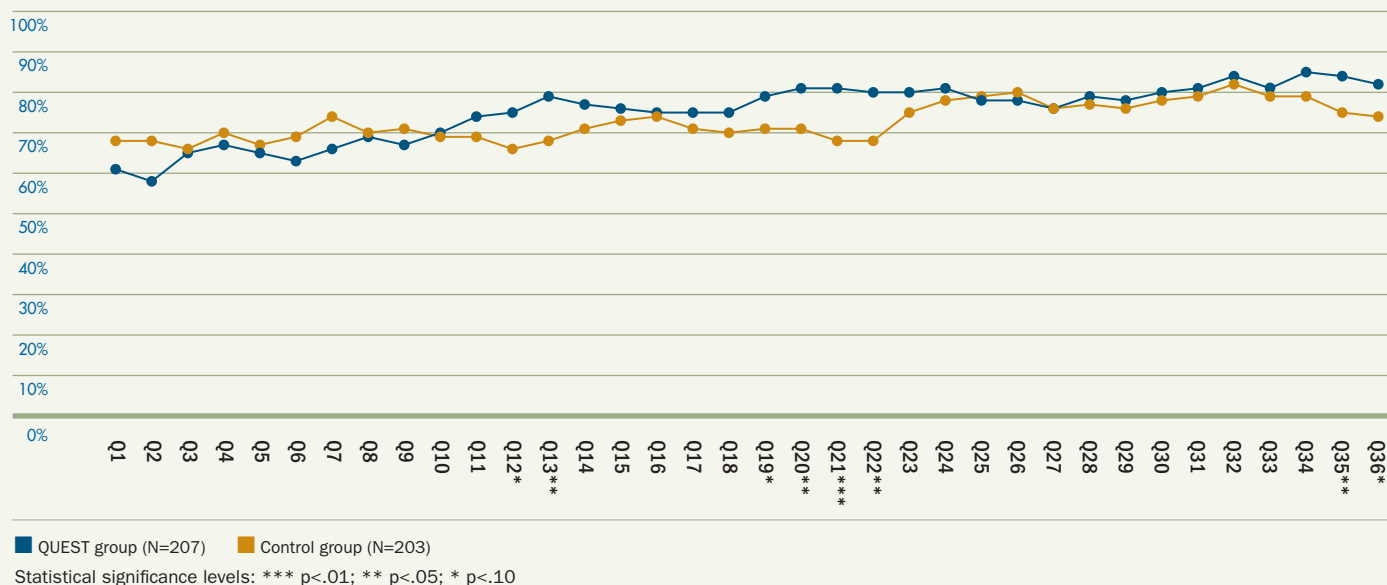


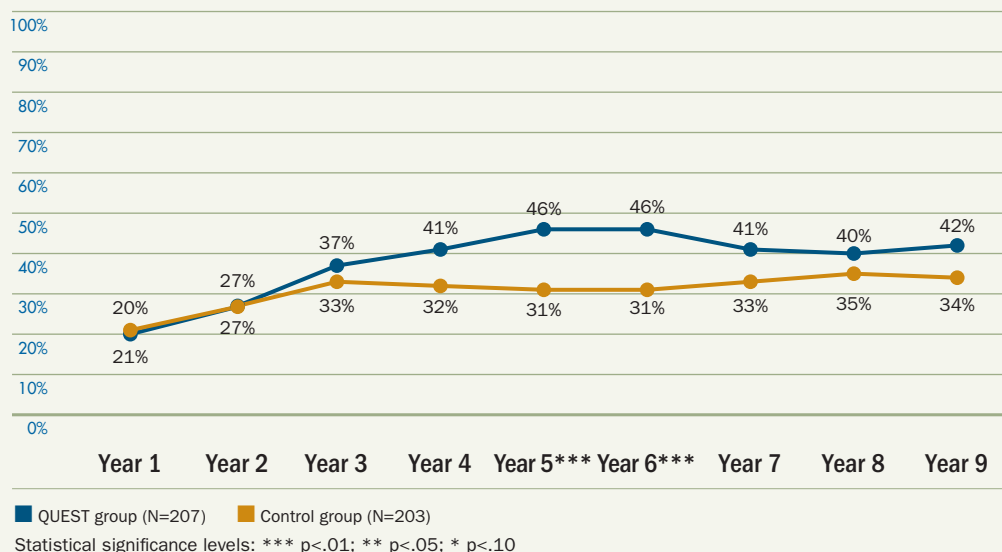
Figure 7 Percent Employed in Each Quarter during the Nine Years after Random Assignment



A main tenet of Project QUEST's sectoral strategy is to prepare 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. As shown in [Figure 8](#), starting in the third year after random assignment, Project QUEST participants were more likely than control group members to work in the health-care industry, although the differences were statistically significant only in years five and six after random assignment.⁷ All individuals in the study, including those in the control group, expressed interest in pursuing a health-care career at the time of 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 practitioner positions, such as nurses and health technicians.

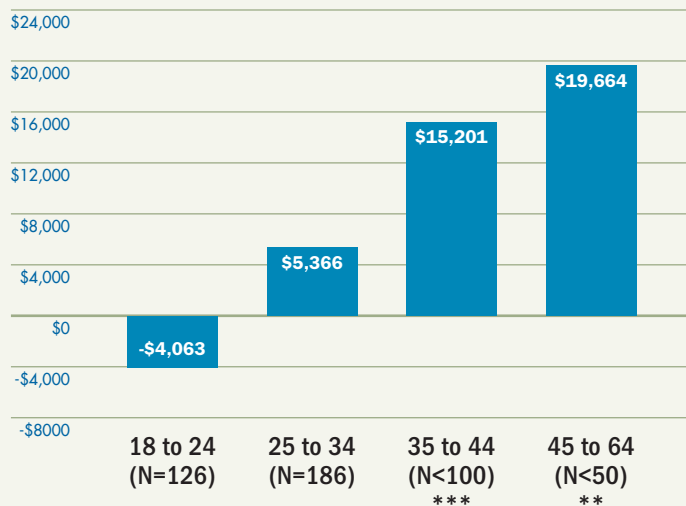
Figure 8

Percent Employed in the Health-Care Industry during Each Year after Random Assignment



Confirming our findings from the six-year survey, Project QUEST continued to have the greatest impacts on the annual earnings of nontraditional-age college students. As shown in [Figure 9](#), the program's impacts on average annual earnings in the ninth year after random assignment were the largest and were statistically significant for those aged 35 to 64. Across the groups, Project QUEST's impacts were significantly greater for participants aged 25 to 64 than for those aged 18 to 24. On the other hand, we previously found that Project QUEST had larger impacts in the sixth year after random assignment for participants who entered the program with a GED rather than a high school diploma. In the ninth year after random assignment, the earnings gains were large for both groups but were greater and were statistically significant for those who had a high school diploma ([Figure 10](#)).

Figure 9 Project QUEST's Impact on Average Annual Earnings in Year Nine, by Age at Program Entry

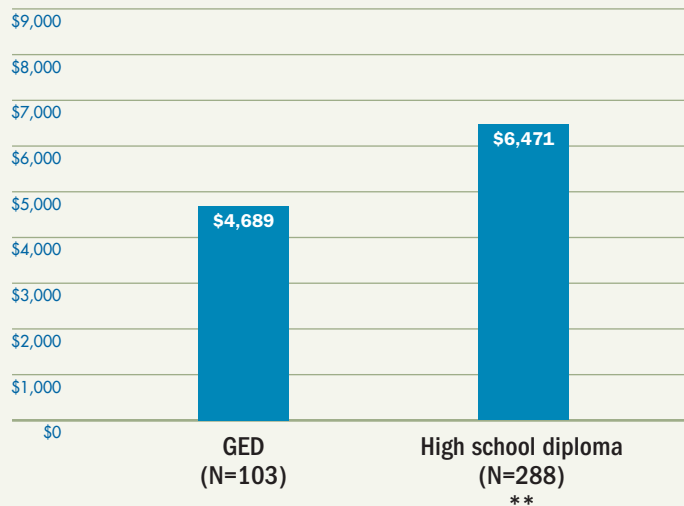


Note: Earnings impacts are reported in current dollars.

Within group significance levels: ***p<.01, **p<.05

Between group significance levels: ***p<.01 35 to 44 and 45 to 64 vs 18 to 24, **p<.05 25 to 34 vs 18 to 24

Figure 10 Project QUEST's Impact on Average Annual Earnings in Year Nine, by Education at Program Entry

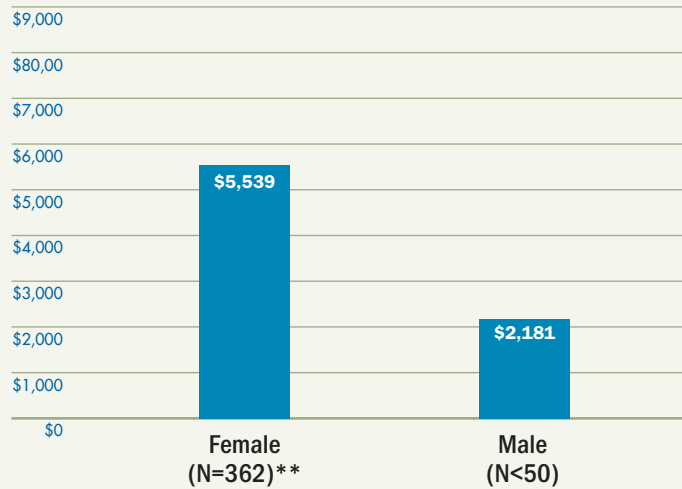


Note: Earnings impacts are reported in current dollars.

Within group significance levels: **p<.05

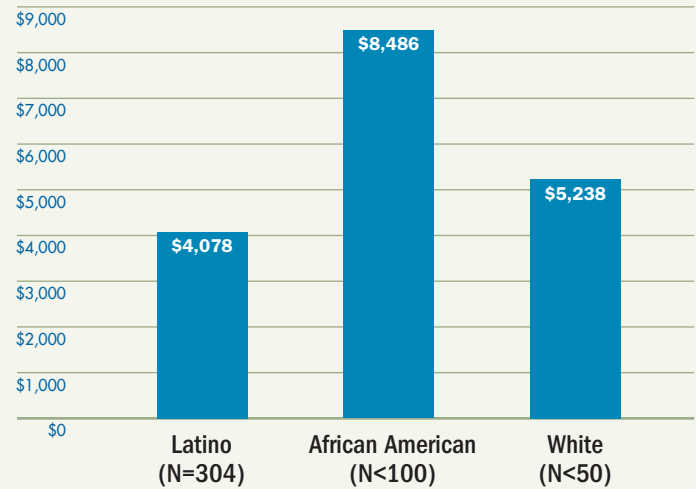
Earnings impacts in the ninth year after random assignment were larger for females than for males, although the number of males in the sample was small and the difference between the groups is not statistically significant ([Figure 11](#)). Earnings gains were large across racial groups, and differences between groups were not statistically significant ([Figure 12](#)). Project QUEST had statistically significant impacts on earnings in the ninth year after random assignment for participants who had never been married ([Figure 13](#)) and for those who had children under age 18 ([Figure 14](#)) at the time of program entry.

Figure 11 Project QUEST's Impact on Average Annual Earnings in Year Nine, by Gender



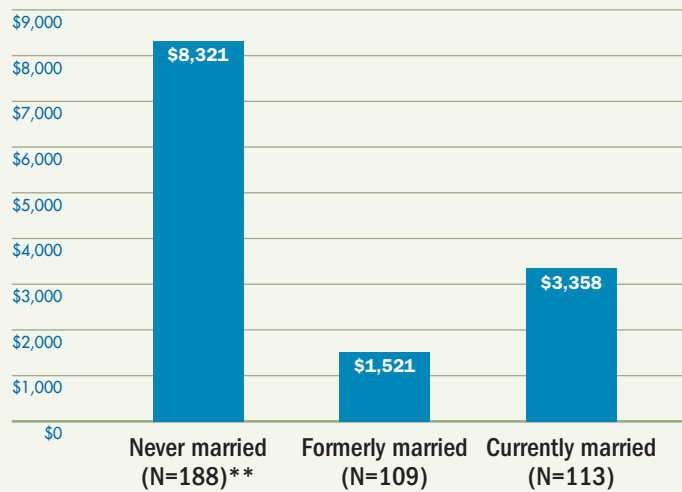
Note: Earnings impacts are reported in current dollars.
Within group significance levels: **p<.05

Figure 12 Project QUEST's Impact on Average Annual Earnings in Year Nine, by Race



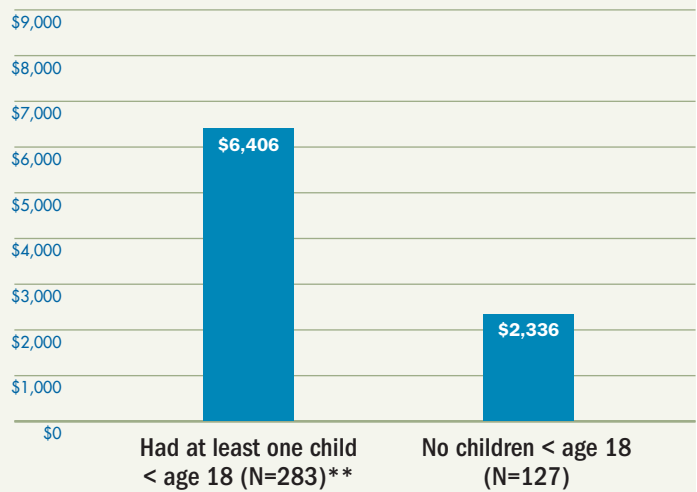
Note: Earnings impacts are reported in current dollars.

Figure 13 Project QUEST's Impact on Average Annual Earnings in Year Nine, by Marital Status at Program Entry



Note: Earnings impacts are reported in current dollars.
Within group significance levels: **p<.05

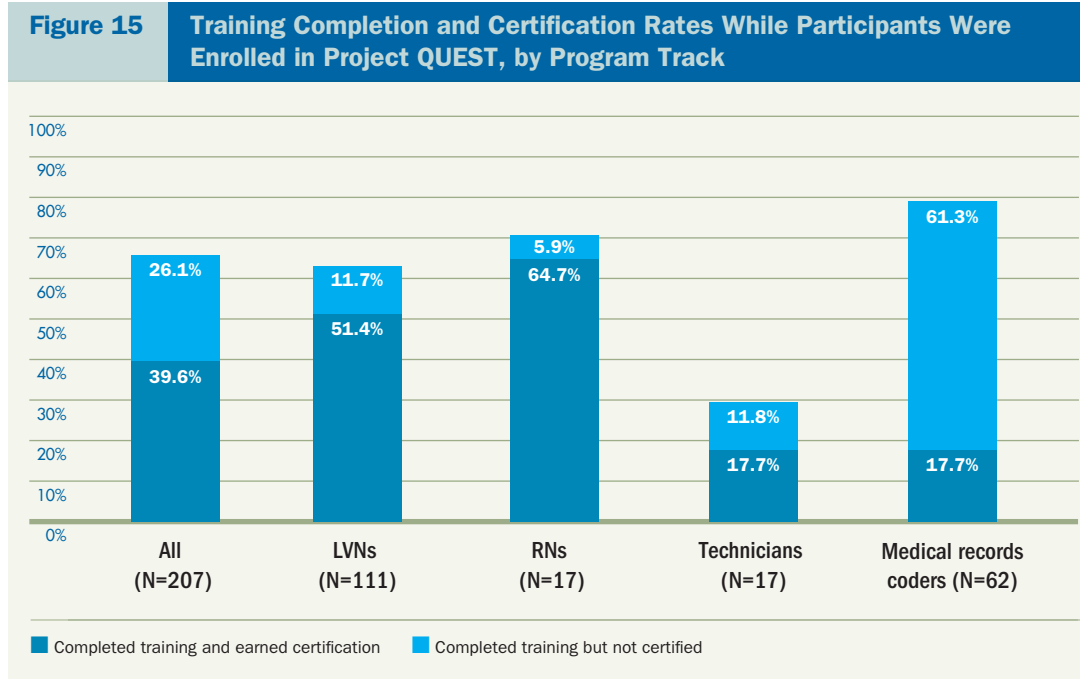
Figure 14 Project QUEST's Impact on Average Annual Earnings in Year Nine, by Parenting Status at Program Entry



Note: Earnings impacts are reported in current dollars.
Within group significance levels: **p<.05

QUEST Participants' Experiences

The treatment group includes both Project QUEST participants who completed their health-care programs and those who did not. Overall, 66 percent of the 207 Project QUEST participants in the study completed training and 40 percent earned the targeted health-care certification while receiving support from Project QUEST. As shown in [Figure 15](#), participants in the LVN and RN programs, the fields in which Project QUEST had the most experience, were substantially more likely than participants in the medical records coding and technician programs to earn the targeted certification. At the time of the study, Project QUEST's relationship with the medical records coding program was new and unproven. While most participants completed the program, 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 completion rates. Staff believed participants dropped out for personal reasons or because they decided the targeted job was not a good fit.



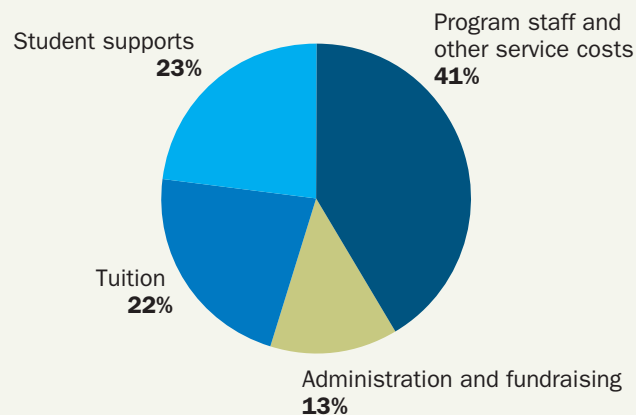
The Project QUEST completers—those who earned a health-care certification while receiving support from the program—realized substantial earnings gains over the nine years after random assignment ([Figure 16](#)). In the ninth year after random assignment, two-thirds were employed in the health-care industry.

Figure 16**Average Annual Earnings of the Project QUEST Completers during the Nine Years after Random Assignment (N=82)**

Note: Earnings are reported in current dollars.

Program Costs

Study participants received support from Project QUEST for an average of 22 months, and the average cost per participant was \$10,501. **Figure 17** presents the break-down of these costs. Tuition costs—that is, the portion of participants' community college tuition that Project QUEST paid—accounted for 22 percent of the overall costs. The additional supports that Project QUEST provided made up another 23 percent of costs, the most common of which were books, transportation, certification exam fees, review courses, uniforms, and vaccinations required to enter the health-care field. Salaries and benefits for program staff, including the career counselors who supported participants from college enrollment through job placement, and other direct program costs accounted for 41 percent of the overall costs.

Figure 17**Project QUEST's Costs
(Average \$10,501 Per Participant)**

These costs represent Project QUEST's costs for operating the program. They do not account for the full costs of post-secondary education for participants; also, the costs of education or similar services received by control group members have not been deducted. We will assess Project QUEST's net costs and make a cost/benefit comparison in a future report. However, given the earnings gains QUEST participants achieved, the results indicate that after nine years, the benefits outweigh the costs by a considerable margin.

Conclusions

Project QUEST's results provide strong evidence to the workforce development and post-secondary education fields regarding the potential of sector-based training programs and comprehensive efforts to increase community college completion rates among low-income, nontraditional students. The Project QUEST model addresses many of the barriers low-income adults face in earning college credentials, including a lack of information about program requirements and navigating financial aid systems, low basic academic skills, and insufficient financial support for educational and other expenses. At the same time, Project QUEST focused on strong sectors of the local economy with well-paying careers and worked with community colleges and employers to ensure that graduates had the skills to meet employers' needs.

The study is important because it demonstrates that Project QUEST had a large, positive impact on career advancement over a nine-year period. Previous studies of sectoral strategies followed participants for only two to three years.⁸ While their findings were positive, they did not address long-term impacts on career advancement, and questions remained about whether impacts would fade over time as individuals changed jobs and sectors. Recent evaluations in the post-secondary education field provide evidence that comprehensive strategies to address low-income students' barriers to attaining post-secondary credentials can have a significant positive impact on graduation rates, but these studies have not yet examined impacts on long-term employment and earnings.⁹ The Project QUEST study demonstrates the potential of programs to have long-term impacts in the health-care field, in which demand remains robust over time. Long-term follow-up is needed in other studies to determine if positive impacts on career advancement can be sustained in other sectors of the economy.

The findings shed light on several key issues, some of which run counter to previous research and the received wisdom about the workforce development field:

- Project QUEST has achieved large, statistically significant earnings impacts that have been sustained over the long-term—the gains have not faded over time, as seen in other employment programs which had near-term impacts. The findings demonstrate the potential long-term rewards of making substantial skills investments in low-income individuals.

- Project QUEST graduates moved out of poverty and into the middle class over the nine years after enrollment. San Antonio is less costly than many US cities. Graduates' average annual earnings of over \$46,000 would be equivalent to approximately \$62,000 in Chicago, \$75,000 in Los Angeles, and \$78,000 in Washington, DC, to maintain the same standard of living.¹⁰
- Some policymakers argue that we cannot afford to spend \$10,000 per participant in a workforce development program. But that perspective ignores the substantial and continued return on Project QUEST's investment to participants, their families, and their communities—a return that more than pays for itself in a few years. Other programs that have demonstrated large earnings impacts, such as Per Scholas and Year Up, also invest substantial sums in training and support. And there is scant evidence that investing substantially less can make a meaningful and lasting difference in people's lives.
- Since its 1992 founding, Project QUEST has served more than 7,000 San Antonio residents, providing access to well-paying careers in information technology, manufacturing, and health care. By preparing local residents for high-demand occupations, and by achieving substantial scale over time, Project QUEST should be considered a vital urban economic development strategy.
- Project QUEST had the most impact on nontraditional students, particularly participants who were older than traditional college age, who were least likely to be able to navigate the community college system and sustain their educations on their own.
- The large impacts for participants with children under 18 are very encouraging. While we did not track impacts on these children, the earnings gains of their parents bode well for them too.
- Our findings also demonstrate the potential payoff of collaboration between non-profit organizations and community colleges to both participants and employers. In this case, Project QUEST provided recruitment, assessment, career advising, support services, and job placement assistance, while local colleges provided academic instruction and occupational training.

This brief focuses on Project QUEST's impacts on participants' earnings in the nine years after random assignment. A future report will examine college enrollment and completion, using National Student Clearinghouse records, and receipt of public benefits, including TANF, SNAP, and unemployment insurance, using administrative records from state agencies. This information will provide additional insights into how Project QUEST affected participants' lives over the nine years since study enrollment.

Endnotes

1. All earnings amounts in this brief are reported in current dollars. Figures presenting the results in constant 2017 dollars are included in the appendix.
2. Holzer, Harry. *Job Market Polarization and U.S. Worker Skills: A Tale of Two Middles*. Policy brief, economic studies, Washington, DC: Brookings Institution, April 2015.
3. 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 tuition for participants. After this time, QUEST covered 50 percent of tuition for participants but continued to cover 100 percent of their fees, books, and other education-related expenses.
4. See: Elliott, Mark and Anne Roder, *Escalating Gains: Project QUEST's Sectoral Strategy Pays Off*, New York: Economic Mobility Corporation, April 2017. For further details on 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, May 2018.
5. The difference in total earnings across the nine years after random assignment is statistically significant at the $p < .10$ level.
6. Barnow, Burt S. and David Greenberg, "Do Estimated Impacts on Earnings Depend on the Source of the Data Used to Measure Them? Evidence from Previous Social Experiments," *Evaluation Review* 39(2):179–228, 2015.
7. The results in Figure 8 do not capture participants who were employed in health-care occupations in non-health-care industries (e.g., nurses employed in schools), but based on the survey data for the first six years, we expect that the data captures a large portion of those working in health care.
8. See: Maguire, Sheila, et al., *Tuning In to Local Labor Markets: Findings from the Sectoral Employment Impact Study*, Philadelphia, PA: Public/Private Ventures, July 2010. Schaberg, Kelsey, *Can Sector Strategies Promote Longer-Term Effects? Three-Year Impacts from the WorkAdvance Demonstration*, New York: MDRC, September 2017.
9. See: Rolston, Howard; Elizabeth Copson; and Karen Gardiner, *Valley Initiative for Development and Advancement: Implementation and Early Impact Report*, OPRE Report #2017-83, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, US Department of Health and Human Services, October 2017. Gupta, Himani, *The Power of Fully Supporting Community College Students: The Effects of CUNY's Accelerated Study in Associate's Programs after Six Years*, New York: MDRC, October 2017.
10. Cost-of-living comparison data obtained from www.bankrate.com/calculators/savings/moving-cost-of-living-calculator.aspx.

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 assess program impacts, this report relies on data from a baseline survey conducted at the time of study enrollment and administrative earnings data from the Texas Workforce Commission for the two years before and nine 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 track and program outcomes for members of the treatment group.

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 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. Those assigned to the control group were told that they would not receive support from QUEST but that they could enroll in college or training on their own or seek other services.

Figure 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 baseline characteristics, including gender, age, highest degree earned, annual earnings, housing status, marital status, and whether participants had 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 to live in public or subsidized housing. These differences are most likely due to chance, given the number of characteristics tested.

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 Figure 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.

Figure A1 Comparison of the Baseline Characteristics of Treatment and Control Group Members in the Project QUEST Randomized Controlled Trial

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

Constant Dollars

The earnings amounts in this brief are reported in current dollars. Figures A2 to A4 present the primary earnings outcomes and impacts adjusted for inflation and expressed as 2017 dollars. Values were adjusted using the Consumer Price Index Research Series (CPI-U-RS),

unadjusted for seasonal variation, from the US Department of Labor, Bureau of Labor Statistics. Across the nine years after random assignment, QUEST participants earned an average of \$20,753 more than control group members (in 2017 dollars).

Figure A2 Average Annual Earnings during the Nine Years after Random Assignment among All Study Participants (2017 Dollars)

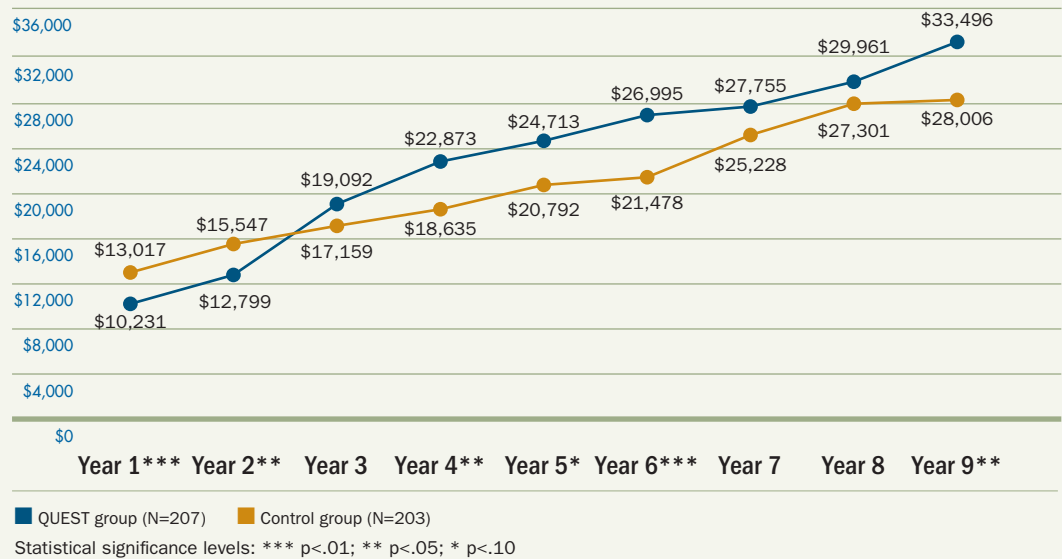
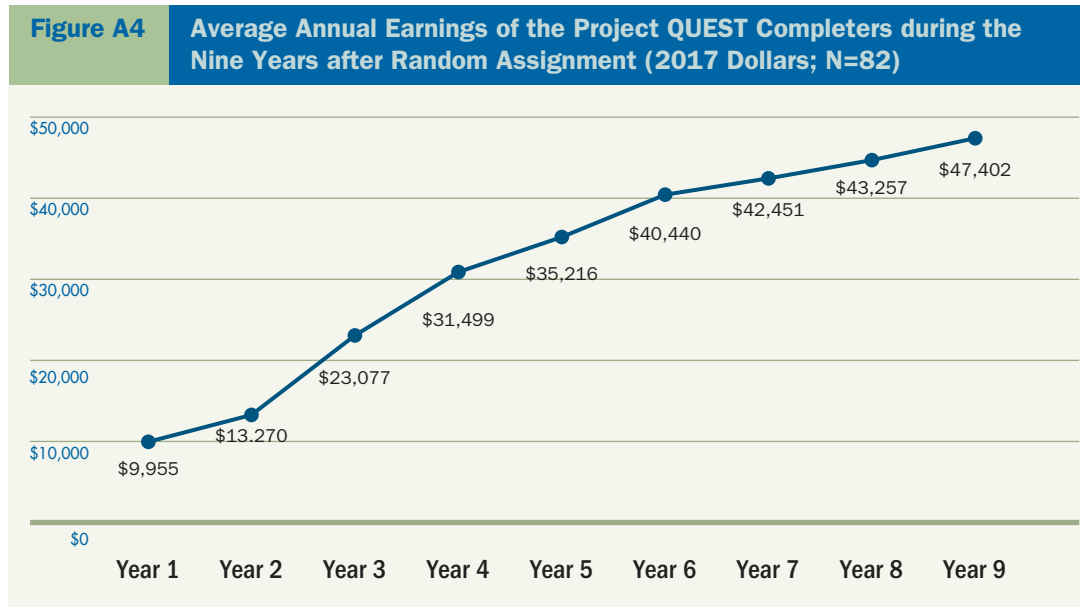


Figure A3 Project QUEST's Impact on Average Annual Earnings during Each Year after Random Assignment (2017 Dollars; N=410)







M O B I L I T Y

Economic Mobility Corporation, Inc.
50 Broadway, Suite 1604
New York, NY 10004
212.280.6975

www.economicmobilitycorp.org