Valley Initiative for Development and Advancement (VIDA)

Six-Year Impact Report

OPRE Report 2022-58

March 2022

PACE
Pathways for Advancing Careers and Education

Valley Initiative for Development and Advancement (VIDA): Six-Year Impact Report

A Pathways for Advancing Careers and Education (PACE) / Career Pathways Long-Term Outcomes Study Publication

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Overview

This report documents the impacts for the Valley Initiative for Development and Advancement program (VIDA) six years after random assignment. Established in 1995, VIDA is a nonprofit, community-based organization created through a partnership of faith-based leaders and the business community of the Lower Rio Grande Valley, Texas. VIDA supports training for unemployed and other low-income adults to obtain certificates and degrees that are expected to lead to jobs that pay well and are in demand locally. It is one of nine programs using elements of a career pathways framework that are being evaluated as part of the **Pathways for Advancing Careers and Education (PACE)** project, sponsored by the Administration for Children and Families (ACF) within the U.S. Department of Health and Human Services.

VIDA consists of five major program components:

- **Required full-time enrollment** in certificate programs, associate degree programs, or the final two years of bachelor's degree programs.
- **Weekly mandatory group and individual counseling sessions** designed to identify and address barriers early, offer social support through staff and peer interactions, and provide workshops to help participants succeed in school and in the labor market.
- **Financial support** for tuition, books, and other needs.
- **The "College Prep Academy,"** a 16-week, accelerated, full-time basic skills ("bridge") program for those who are not college ready, but who have 10th-grade skills levels or higher as demonstrated through math, reading, and writing assessments.
- **Regular assessment of local labor markets,** including consulting with local economic development corporations to learn about current and anticipated labor needs in the area.

The evaluation of VIDA used a rigorous experimental design. This report describes VIDA's six-year impacts on educational attainment, earnings and employment, and other life outcomes. It extends the analyses of program effects measured two and three years after randomization.

Research Questions

Six years after random assignment, what were the effects of VIDA on

- education outcomes?
- entry into career-track employment and higher earnings?
- individual and family well-being, including income and other life outcomes?

Purpose

This research was undertaken to evaluate whether VIDA was successful in providing training to low-income, low-skilled adults and whether the program's efforts led to impacts on credentials,

earnings, and other life outcomes. VIDA provides substantial financial and personal supports to low-income students so they can complete college-level occupational programs that prepare them for well-paying jobs in demand in the region.

Key Findings

Analyses in this report indicate that after six years, VIDA:

- ***Increased by 12 percentage points receipt of college credentials requiring at least eight months of full-time equivalent (FTE) college enrollment, the confirmatory outcome in the education domain.*** Sixty-six (66) percent of the treatment group received such a credential, compared to 55 percent of the control group.
- ***Had positive impacts on many other education measures.*** Compared to members of the control group, VIDA increased treatment group members receipt of an associate degree or higher (by 8 percentage points) and total FTE months of college enrollment (by 3 months).
- ***Had no detectable impact on average quarterly earnings in follow-up quarters 23 and 24, the confirmatory outcome in the employment domain.*** The average quarterly earnings for treatment group members were $8,409, compared to $8,337 for the control group.
- ***Had no detectable impact on most measures of job quality or economic wellbeing.*** VIDA did not have detectable impacts on hours worked or hourly wages, working in jobs above certain wage thresholds, working in jobs offering benefits, or receipt of promotions. Compared to the control group, VIDA reduced the financial distress scale for treatment group members by 0.22 points, and reduced receipt of means tested public benefits by nine percentage points. However, VIDA did not produce a detectable impact on household income, financial resilience, or self-assessed well-being.

Methods

To assess the effectiveness of VIDA, the PACE project used an experimental design in which program applicants were assigned at random to a treatment group that could access the program or to a control group that could not, then compared their outcomes. Between November 2011 and June 2014, a total of 958 program applicants were randomly assigned (478 to the treatment group and 480 to the control group). The six-year impact study used data from a follow-up survey conducted six years after randomization, earnings records from the National Directory of New Hires, and college enrollment data from the National Student Clearinghouse.

Executive Summary

Established in 1995, the Valley Initiative for Development and Advancement (VIDA) is a non-profit, community-based organization located in the Lower Rio Grande Valley of Texas. VIDA supports training for low-income adults to obtain certificates and degrees that are expected to lead to jobs that pay well and are in demand locally.

Abt Associates is evaluating VIDA as part of the **Pathways for Advancing Careers and Education (PACE)** project, a multi-site experimental study of nine programs using elements of the career pathways approach. The evaluation is funded by the Administration for Children and Families within the U.S. Department of Health and Human Services.

This report extends earlier analyses of VIDA's impacts through six years on educational attainment, earnings and employment, and other life outcomes.

Program Overview

VIDA supports full-time enrollment of adults in occupational training programs at local colleges by providing intensive counseling and substantial financial assistance for tuition and other direct costs of attending school.

The major VIDA program components are:

- **Required full-time enrollment** in certificate programs, associate degree programs, or the final two years of bachelor's degree programs.
- **Weekly mandatory group and individual counseling sessions** designed to identify and address barriers early, offer social support through staff and peer interactions, and provide workshops on topics to help participants succeed in school (e.g., study skills) and in the labor market (e.g., resume writing).
- **Financial support for tuition, books, and other needs,** taking into consideration eligibility for other financial support such as Pell grants, the household's income and living expenses, the type of program, and the length of time it expects the student to participate in the program.
- **The "College Prep Academy,"** a 16-week, accelerated, full-time basic skills ("bridge") program for those who are not college ready, but who have 10th-grade skills levels or higher as demonstrated through math, reading, and writing assessments.
- **Regular assessment of local labor markets,** including consulting with local economic development corporations to learn about current and anticipated labor needs in the area.

VIDA's program components—made up of incentives and requirements—are designed to complement one another. On the one hand, while in the program, VIDA has a demanding set of requirements: full-time enrollment in school, achievement of passing grades, and participation in weekly counseling sessions. On the other hand, VIDA provides a high level of support to help participants meet these requirements. Financial support, particularly with tuition, is intended to minimize participants' need to work so they can focus on school. Personal support provided

through counseling sessions is designed to help participants address academic and personal challenges that otherwise might derail their completion of training.

Evaluation Design

The research team used an experimental research design to estimate the impact of access to VIDA on participants' postsecondary education and training, earnings and employment, and other life outcomes. A total of 958 eligible applicants who enrolled between November 2011 and June 2014 participated in the study—478 were randomly assigned to the treatment group that was offered access to VIDA, and 480 were randomly assigned to the control group that was not able to enroll in VIDA but could access other, often similar, training and services in the community on their own.[1]

The PACE project established three categories of hypotheses: confirmatory, secondary, and exploratory. *Confirmatory hypotheses* focus on two outcomes—one each in the education and employment domains—that indicate whether VIDA is producing the results expected at six years. *Secondary hypotheses* address an additional, limited set of indicators in the education, earnings, and financial well-being domains, where the team expects program impacts in a specific direction. *Exploratory hypotheses* address a larger number of possible impacts in which impacts could be in either direction.[2]

Data sources for this report include two baseline surveys administered at the time of study enrollment; 18-month, three-year, and six-year study participant follow-up surveys; school enrollment and credential data from the National Student Clearinghouse; and earnings and employment data from the National Directory of New Hires.

Earlier Findings

A prior report (Rolston et al. 2021) documented the three- and four-year impacts on education outcomes, entry into career-track employment and higher earnings, and individual and family well-being. Three years after random assignment, VIDA had a 9 percentage point impact on receipt of credentials requiring a year or more of college: 61 percent of the treatment group received such a credential, compared to 52 percent of the control group. Compared to members of the control group, VIDA also moderately increased several other educational outcomes for the treatment group: full-time-equivalent college enrollment (2 months), college credits (6 credits), and receipt of an associate degree or higher (7 percentage points). VIDA also had an impact on college enrollment in the fourth year after random assignment, a period in which most treatment group members were no longer participating in the program.

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1 This design ensures that estimated effects can be attributed to access to the program and not to unmeasured differences in characteristics or external circumstances between study participants with access (treatment group) and without access (control group) to the program.

2 The research team published the six-year analysis plan for VIDA and other programs in the PACE project on the Open Science Framework website and registered confirmatory and secondary outcomes before beginning estimation of six-year impacts: https://osf.io/s97jt/.

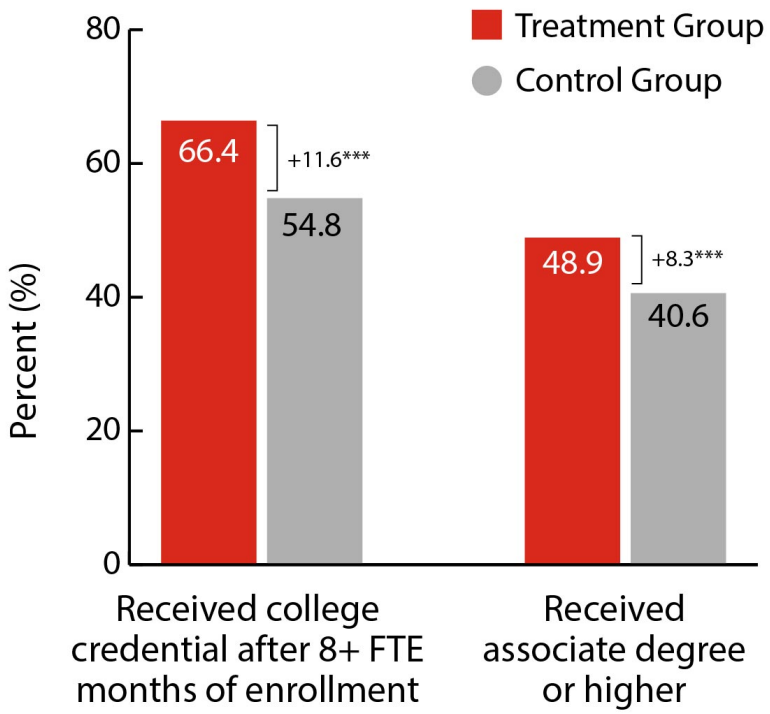
This three-year impact on credentials did not translate into impacts on employment and earnings through three years. VIDA had no detectable impact on average quarterly earnings in the last two quarters of the follow-up period (quarters 12 and 13), the confirmatory outcome in the employment domain for the three-year follow-up. Nor did VIDA have a detectable impact on employment overall or key indicators of career progress, such as hourly wage. Among women, VIDA substantially reduced the likelihood of childbearing (by 9 percentage points, a relative decrease of 30 percent) and reduced the share living with a spouse or partner (also by 9 percentage points, a relative decrease of 16 percent).

Key Findings

This six-year impact study addresses the following research questions: relative to the control group, does VIDA have impacts on receipt of longer-term college credentials; earnings; employment in promising jobs; and financial well-being?

VIDA increased receipt of longer-term college certificates and degrees since random assignment. Six years after random assignment, VIDA increased by 12 percentage points (66 percent of the treatment group and 55 percent of the control group) receipt of a college credential after eight or more months of full-time equivalent (FTE) enrollment, which is the confirmatory educational outcome at this follow-up point (Exhibit ES-1). VIDA also increased receipt of an associate degree or higher by eight percentage points (49 percent of the treatment group versus 41 percent of the control group). These impacts are among the largest observed at the same point of follow-up in randomized trials of college completion programs (Dawson et al. 2021; Roder and Elliott 2020; Weiss et al. 2019) and provide strong evidence that VIDA met its primary educational goal of increasing receipt of college certificates and degrees among program participants.

Exhibit ES-1: Impacts on Credential Receipt after Six Years



Source: National Student Clearinghouse.

Note: FTE=full-time equivalent. "Received college credential after 8+ FTE months of enrollment" is the confirmatory outcome in the education domain. "Received associate degree or higher" is a secondary outcome. For both outcomes, hypothesis tests are one-sided.

Statistical significance levels based on differences between research groups: *** 1 percent level; ** 5 percent level; * 10 percent level.

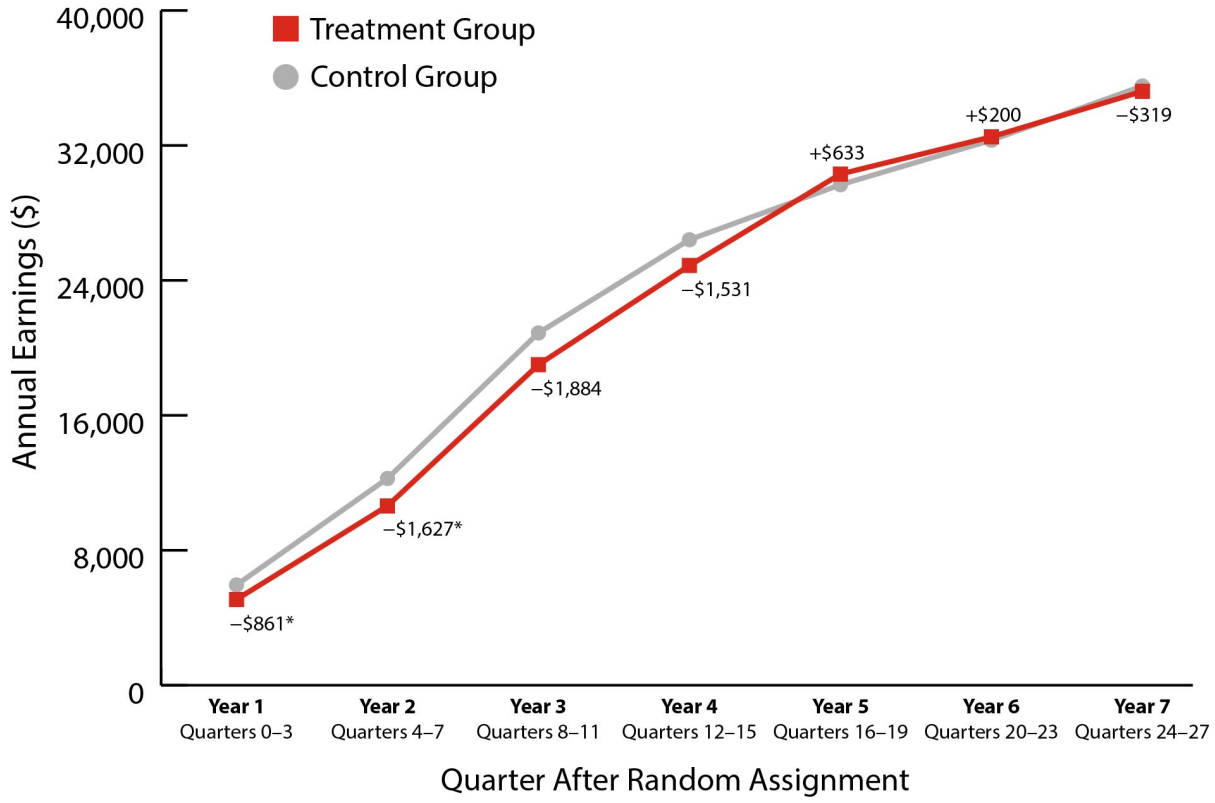
VIDA increased cumulative FTE months of college enrollment by about three months. Consistent with the impact on credential receipt, VIDA increased the duration of college enrollment. Between random assignment and the end of Year 7, treatment group members attended college for 19 FTE months, compared to 16 FTE months for the control group.

VIDA had positive impacts on college enrollment in each of the first five years after random assignment, but not in Years 6 or 7. VIDA produced an impact on total months with any college enrollment in each of the first five years after random assignment but did not have a detectable impact on enrollment in Years 6 or 7. By Year 6, less than 20 percent of participants were enrolled in college. In years three through seven, there was no detectable impact on full-time college enrollment.

VIDA increased the share of participants who earned a college credential and subsequently enrolled in additional training. After six years, 43 percent of the treatment group earned a college credential and subsequently enrolled in four or more months of college classes, compared to 32 percent of the control group (impact of 11 percentage points). This subsequent enrollment was unexpected, as the goal of VIDA was to help participants complete an approved training program and earn a credential that qualified them for good-paying jobs in high demand. VIDA participants who obtained the target credential could continue in school to earn higher-level credentials, but typically that would be without VIDA support.

VIDA's credential impacts did not lead to detectable earnings impacts. VIDA did not have a detectable impact on average quarterly earnings in the 23rd and 24th follow-up quarters, which is the confirmatory outcome in the employment domain at this follow-up point. Both treatment and control group members earned about $8,400 per quarter. Consistent with the fact that treatment group members were more likely to be enrolled in college than control group members in the first two follow-up years, VIDA produced a negative earnings impact in Years 1 and 2. Although treatment group annual earnings rose sharply from roughly $5,000 in Year 1 to about $35,000 in Year 7, control group earnings rose at about the same pace. Thus, starting in Year 3 and continuing through Year 7, there was no detectable impact on annual earnings (Exhibit ES-2).

Exhibit ES-2: Impacts on Annual Earnings



Source: National Directory of New Hires.

Note: Earnings in Years 1 to 3 are exploratory outcomes; earnings in Years 4 to 7 are secondary outcomes. Hypothesis tests are one-sided for secondary outcomes and two-sided for other (exploratory) outcomes.

Statistical significance levels based on differences between research groups: *** 1 percent level; ** 5 percent level; * 10 percent level. Data for Year 7 are missing for about 3 percent of the sample.

VIDA did not produce a detectable increase in most measures of job quality, but the program did increase self-assessed career progress and access to a career network. VIDA did not have detectable impacts on hours worked or hourly wages: on average, both treatment and control groups worked for about 32 hours per week and earned about $20 per hour. VIDA produced no impacts on other measures of job quality and career progress—including working in jobs above certain wage thresholds, working in jobs offering benefits, or

receiving promotions in the past three years. At the end of six years, the job characteristics of treatment and control group members were very similar.

The treatment group reported an increase of 0.34 points (effect size of 0.15) on the access to career supports scale and an increase of 0.12 points (effect size of 0.14) on the perceived career progress scale. VIDA's positive impact on career supports could be related to the program's mandatory weekly counseling sessions that were held three times a month in a group setting and once a month individually. The increase in perceived career progress may be associated with the additional credentials earned by the treatment group compared to the control group.

There is little evidence that VIDA had an impact on the occupational sector of employment. VIDA's training programs covered a wide variety of occupations, with a majority of participants training in nursing or allied health occupations. There is little evidence that VIDA had an impact on the occupation of program participants with both treatment and control groups' occupational sectors being very similar. This finding suggests that, even without access to the program, control group members pursued similar occupations to treatment group members, most likely because a large majority of both were already in a program at random assignment.

There is some evidence that VIDA reduced financial distress and receipt of means-tested public benefits but had no positive detectable impact on other measures of economic or general well-being. Compared to the control group, VIDA reduced the financial distress scale for treatment group members by 0.22 points, and reduced receipt of means tested public benefits by nine percentage points (41 percent for the treatment group versus 50 percent for the control group). These results might suggest that participants improved their economic situation such that they needed fewer public benefits. However, there is no evidence that VIDA increased household income or improved financial resilience. VIDA did not produce a detectable impact on other measures of self-assessed well-being, including life challenges, stress, social support, or health.

VIDA reduced the likelihood of childbearing and living with children among women, but not for men. Although the career pathways theory of change as applied to VIDA did not hypothesize that the program would affect childbearing and marriage, other research studies have linked postsecondary education to delays in childbearing and marriage, especially for women. Consistent with this research, VIDA reduced the likelihood of childbearing among women by 12 percentage points (32 percent of the treatment group versus 44 percent of the control group) but had no detectable impact for men. Similarly, VIDA reduced the share of women living with children by 13 percentage points (65 percent of the treatment group compared to 79 percent of the control group) but had no detectable impact for men. This compares to 9 percentage point impacts among women for both measures at the end of three years.

VIDA had no detectable impact on the share living with a spouse or partner. In the three-year report, VIDA reduced the share of women living with a spouse or partner by 9 percentage point. By six years, there is no longer a detectable impact on the share living with a spouse or partner, either for women or for the full sample.

Possible Explanations for Results and Implications for Programs

VIDA's impacts on educational credentials that are expected to yield economic gains are large in the context of experimental research on interventions intended to increase college completion. However, these credential impacts did not translate into earnings impacts. The lack of earnings impacts is particularly surprising given the results of a closely related program, Project QUEST, which had a similar impact on credentials but an impact of nearly $4,700 on annual earnings.[3] Motivated by the divergent earnings impacts between VIDA and QUEST, we explore possible explanations of why, despite substantial positive credential impacts, VIDA did not have positive earnings impacts.

VIDA did not have a detectable impact on receipt of Licensed Vocational Nursing (LVN) certificates or associate degrees in nursing (ADN), which have high economic returns. In contrast, Project QUEST produced large impacts on receipt of LVN certificates and employment in healthcare. Prior non-experimental research has found that the economic return to college credentials varies substantially by occupation. Healthcare credentials, especially degrees and longer-term certificates of the kind that VIDA supported, on average provide a much larger increase in earnings than non-healthcare credentials (Dadgar and Trimble 2015; Belfield and Bailey 2017; Stevens et al. 2019). Aggregating across credential types, VIDA had positive impacts on both healthcare and non-healthcare credentials. However, VIDA did not have a detectable impact on receipt of an LVN certificate or ADN, both of which have large average economic returns (Stevens et al. 2019).

VIDA's lack of impact on high-value healthcare credentials is plausibly a key driver of the difference in earnings impacts between VIDA and QUEST. QUEST substantially increased LVN receipt by 21 percentage points (36 percent of the treatment group versus 15 percent of the control group). The 21 percentage point impact for QUEST compared to the 4 percentage point estimate for VIDA is a plausible explanation for QUEST's positive earnings impacts and VIDA's lack of such an impact.

QUEST's impact on receipt of an LVN credential is much larger than its overall impact on receipt of any credential (LVN or otherwise) that requires a year or more of study (21 percentage points for LVN versus 11 percentage points for all credentials). This suggests that relative to those in the control group, QUEST shifted participants who pursued training from other lower earning occupational areas to high earnings LVN training. This is unlike VIDA, which had no impact on ADN or LVN credentials. In addition, QUEST increased employment in healthcare by 16 percentage points. In contrast, VIDA had no detectable impact on healthcare employment. In summary, QUEST's shift in both training and employment towards well-paying healthcare occupations likely contributed to its larger earnings impacts. Together, the VIDA and QUEST results illustrate that the success of postsecondary training programs in improving

[3] When VIDA was established in 1994, it intentionally adopted the same model as Project QUEST, a program in San Antonino, Texas that had been established several years earlier. The "QUEST" model has also been adopted in several other cities, primarily in Texas. VIDA's implementation of the model is very similar to Project QUEST's with some differences that are discussed in Chapter 5.

earnings outcomes depends on success in improving credential outcomes in occupations and sectors that have high economic returns.

VIDA recruited a large portion of its participants from students who were already enrolled in college programs. Seventy percent of VIDA participants were already enrolled in college when they joined the study. For these already-enrolled participants, VIDA increased receipt of a credential requiring a year or more of full-time study by 6 percentage points. In contrast, for the 30 percent of participants who were not already enrolled when they joined the study, VIDA increased credential receipt by 23 percentage points. Notably, the QUEST evaluation included only individuals who were not currently enrolled in college, which may have also contributed to QUEST's larger impact on receipt of nursing credentials.

In establishing program eligibility criteria, program operators should consider both who might succeed in the program, as well as who might succeed without it. In establishing eligibility criteria and selecting applicants, program operators are typically attuned to excluding individuals who have little chance of completing it even with the program's services. VIDA's impact on credentials for non-enrolled participants was four times as large as for those already enrolled, but in the absence of the program, only about one-third of the non-enrolled would have earned a credential versus two-thirds of the already-enrolled. Based on these impacts, 92 percent of already enrolled treatment group members who earned a credential would have done so without the help of VIDA. By contrast, only 60 percent of those who were not enrolled at program entry would have earned their credential without VIDA's assistance. This suggests that the program could have had much larger impacts on credentials, and perhaps earnings, had it enrolled a smaller proportion of individuals who were likely to succeed on their own. More generally, program operators may be reducing their program's impact if they select too many applicants who are very likely to succeed without the program. Determining the right eligibility criteria to achieve large impacts is almost certain to be challenging and imprecise, but the effort to consider the likely outcomes of non-participants may help programs achieve larger impacts.

Researchers who assess the effectiveness of college completion programs should estimate impacts on earnings and on more specific types of credentials. The VIDA results show that improvements in college completion, even with respect to longer-term credentials, do not necessarily lead to increases in earnings, particularly if the impacts are not for high-value credentials. This suggests the value of measuring the earnings of study participants directly in evaluations of college completion programs as well as estimating impacts on credentials at a finer level than just length of training or whether the level of the credential is a certificate or degree. The VIDA results also suggest that typical size studies are likely underpowered to detect earnings impacts, in the absence of very large impacts on credentials with high economic value. Large, possibly multi-site, studies likely are necessary.

Replication and multi-site studies are vital to ensure the application of the findings to other settings is warranted. QUEST had positive impacts on credentials and earnings; VIDA had positive impacts on credentials, but not on earnings. Thus, the PACE evaluation of VIDA did not replicate the QUEST findings. The VIDA results should serve as impetus for further evaluations of the model. Without successful replication, a program model should not be

deemed effective more broadly in other environments or with other populations. Replication, where possible in multiple sites, is vital to have confidence in their broader applicability.

1. Introduction

This report estimates the long-term impacts of the Valley Initiative for Development and Advancement (VIDA) program, located in the Lower Rio Grande Valley (LRGV) in Texas. VIDA's mission is to "simultaneously address employers' needs for skilled workers and prepare the area's unemployed and underemployed residents with high-skill, high-wage jobs identified in the region."[4] Established in 1995, VIDA provides financial and personal supports to low-income individuals to improve their prospects for completing postsecondary occupational training primarily in local colleges with which the program has established relationships. This report describes the program's six-year impacts on education, employment, earnings, and other life outcomes.

VIDA was founded at a time of economic turmoil in the LRGV. The textile industry, a major source of employment, was experiencing major layoffs and low prospects for future recovery. At the same time, many businesses that employed higher-skilled labor were forced to try to attract workers from outside the region. To address these challenges, a group of faith leaders partnered with business leaders to establish a labor market intermediary, VIDA, that would support LRGV residents with low incomes in the longer-term training necessary to meet employers' needs for workers with higher skills. They modeled VIDA after another program, Project QUEST ("QUEST"), established several years earlier in San Antonio.[5]

Following the QUEST model, VIDA assumes that short-term training seldom leads to good-paying jobs. Instead, longer-term training is needed. However, financial and personal barriers for individuals with low incomes impede their completing longer-term training.[6] The VIDA program model requires participants to enroll full-time in training, because staff view part-time enrollment as allowing life problems more time to manifest themselves leading to non-completion.[7] VIDA supports full-time enrollment by providing generous financial support to reduce the need for simultaneous work and personal supports to help avoid and respond to emergencies that could lead to students dropping out. In return, VIDA expects high attendance in school and at weekly VIDA counseling sessions and monitors both closely.

Completing the occupational programs VIDA supports typically require a year to two of full-time enrollment. Through labor market analysis and consultation with employers, VIDA only supports participants in training programs that are likely to pay family-supporting wages and have high

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4 VIDA website (https://www.vidacareers.org/philosophy-mission-history/)

5 QUEST website (https://www.questsa.org/)

6 Levesque 2018 (https://www.brookings.edu/research/community-college-completion-rates-structural-and-motivational-barriers/)

7 Other program models have been motivated by this same concern, for example, the City University of New York Accelerated Study in Associate Programs (ASAP). See Weiss et al. (2019).

demand in the LRGV.[8] These training programs cover a wide variety of occupations, but consistent with both regional and national projections of the growing healthcare sector, a large majority of VIDA participants train in nursing or allied health occupations.[9]

1.1 The Pathways for Advancing Careers and Education Project

VIDA is one of nine training programs being evaluated in the **Pathways for Advancing Careers and Education (PACE)** project. The Administration for Children and Families (ACF) within the U.S. Department of Health and Human Services sponsors PACE. The nine programs variously incorporate elements from a career pathways framework that PACE uses to organize and understand findings.[10] Because the operating organizations and their program models, target populations, and focal occupations and industries vary, PACE evaluates and reports findings for each of the nine programs individually. The box *Programs in PACE* lists them.

Programs in PACE

- ***Bridge to Employment in the Healthcare Industry**, San Diego Workforce Partnership, County of San Diego, CA**
- ***Carreras en Salud**, Instituto del Progreso Latino, Chicago, IL^*
- ***Health Careers for All**, Workforce Development Council of Seattle-King County, Seattle, WA**
- ***Integrated Basic Education and Skills Training (I-BEST) program** at three colleges (Bellingham Technical College, Everett Community College, and Whatcom Community College), Washington State*
- ***Pathways to Healthcare**, Pima Community College, Tucson, AZ**
- ***Patient Care Pathway Program**, Madison College, Madison, WI*
- ***Valley Initiative for Development and Advancement (VIDA)**, Lower Rio Grande Valley, TX*
- ***Workforce Training Academy Connect**, Des Moines Area Community College, Des Moines, IA*
- ***Year Up**, Atlanta, Bay Area, Boston, Chicago, National Capital Region, New York City, Providence, and Greater Seattle*

**Programs funded through ACF's Health Profession Opportunity Grants (HPOG) Program.*

^Program partially HPOG funded.

The basic assumption underlying the ***career pathways framework*** is that postsecondary education and training should be organized as a series of manageable steps leading to successively higher credentials and employment opportunities in growth occupations (Fein 2012). The framework also identifies four components aimed at encouraging persistence, completion, and advancement along the career pathway for adults with low incomes: academic and non-academic assessment; innovative basic skills and occupational skills instruction; academic and non-academic supports; and strategies to connect training participants and employers. Programs within the career pathways framework vary widely in the levels of training they cover.

8 For example, VIDA generally does not support training that leads only to a Certified Nursing Assistant (CNA) credential. Even though CNAs are in high demand the labor market, the program typically does not lead to a family-supporting wage.

9 The U.S. Bureau of Labor Statistics (2021) projects that healthcare occupations will grow 15 percent from 2019 to 2029 and add more jobs than any of the other occupational groups, largely because of the aging U.S. population.

10 For more on PACE see https://www.acf.hhs.gov/opre/project/pathways-advancing-careers-and-education-pace-2007-2018.

Training steps might range from remedial instruction in basic academic and social skills needed to enroll in occupational training to a four-year college degree and beyond.

Previous PACE reports assessed VIDA's implementation and early impacts (measured 18 to 24 months after random assignment) on education and employment-related outcomes, and its intermediate-term impacts (measured three to four years after random assignment) on educational progress, labor market outcomes, and family well-being.[11]

The present report extends the impact analyses to six and seven years, depending on the data available for each outcome. Like the earlier report, this report presented estimates of impacts on educational progress, employment, earnings, and individual and family well-being.

1.2 The VIDA Program

Established in 1995, VIDA is a nonprofit, community-based organization created through a partnership of faith-based leaders and the business community of the LRGV in Texas. The program targets residents of the LRGV who are: 18 or older, eligible to work in the United States, unemployed or underemployed, and college-ready for regular credit-bearing classes or have 10th grade skills or higher and so qualify for VIDA's accelerated full-time bridge program. The program's main sources of applicants are referrals from their partner community colleges and outreach to the community. VIDA is one of ten programs, primarily in Texas, that follow the model established by Project QUEST in San Antonio.

VIDA's major program components are:

- **Required full-time enrollment** in certificate programs, associate degree programs, or the final two years of bachelor's degree programs. VIDA requires full-time enrollment because it enables students to progress toward their targeted credential and a higher-paying job more quickly than part-time enrollment, and this faster progress motivates students to continue their program and reduces the time for other life events to interfere with completion.

- **Weekly mandatory group and individual counseling sessions.** These sessions are designed to identify and address barriers early, offer social support through staff and peer interactions, and provide workshops on topics to help participants succeed in school (e.g., study skills) and in the labor market (e.g., resume writing). VIDA counselors conduct the sessions at students' colleges to make it easier for them to attend.

- **Financial support for tuition, books, and other needs.** VIDA carefully calculates the amount of financial support it will provide each participant based on the full cost of attendance, taking into consideration eligibility for other financial support such as Pell grants, the household's income and living expenses, the type of program, and the length

[11] The early impacts report (Rolston et al. 2017) is available at https://www.acf.hhs.gov/opre/report/valley-initiative-development-and-advancement-implementation-and-early-impact-report; the intermediate-term impacts report (Rolston et al. 2021) is available at https://www.acf.hhs.gov/opre/report/valley-initiative-development-and-advancement-vida-three-year-impact-report.

of time it expects the student to participate in the program. A significant share of VIDA's financial support goes toward tuition and course-required materials. As a result of VIDA funding tuition and fees, students can use any remaining Pell grant funds for which they are eligible for other costs of school and living expenses. Transportation assistance is also available from VIDA to offset the costs of attending class.

- **The "College Prep Academy."** The academy is a 16-week, accelerated, full-time basic skills ("bridge") program for those who are not college ready, but who have 10th-grade skills levels or higher as demonstrated through math, reading, and writing assessments. Offered through a partnership with the local colleges, the course meets daily to prepare participants to pass required college entrance exams.
- **Regular assessment of local labor markets.** VIDA identifies occupations where support for training from VIDA is most likely to result in employment in jobs that pay well. One way VIDA does this is by consulting with local economic development corporations to learn about current and anticipated labor needs among businesses in the area.

VIDA's program components—made up of incentives and requirements—are designed to complement one another. On the one hand, VIDA has a demanding set of requirements: full-time enrollment in school, achievement of passing grades, and participation in weekly counseling sessions. On the other hand, VIDA provides a high level of support to help participants meet these requirements. Financial support, particularly with tuition, is intended to minimize participants' need to work so they can focus on school. Personal support provided through counseling sessions is designed to help participants address academic and personal challenges that otherwise might derail their completion of training.

1.3 Evaluation Design

To measure VIDA's effects, the research team randomly assigned 958 eligible applicants between November 2011 and June 2014 to treatment and control groups and compared average outcomes for the two groups over time. Treatment group members could participate in the VIDA program; control group members could not participate in VIDA but could pursue other training and services in the community.[12]

Random assignment ensures that there will be no systematic differences between the study's treatment and control groups in their observed and unobserved characteristics, and that any systematic differences in their subsequent outcomes (i.e., the program's impacts) can be attributed to the treatment group having access to program services.

1.3.1 Hypothesis Testing

An essential principle in the PACE analysis plan (Fein et al. 2021) is to conduct the statistical tests in a way that minimizes the number of false positive impacts due to chance (i.e., the

[12] As a requirement of the study, control group members could not participate in VIDA for a two-year period from their date of random assignment. After two years, they could apply again to VIDA and enroll if they met VIDA's eligibility criteria at that time. By August 2018, only 20 had done so.

"multiple comparison" problem). To address this risk, the project established three categories of hypotheses: confirmatory, secondary, and exploratory.

Confirmatory hypotheses focus on a very few outcomes that indicate whether the program is producing the results expected at a given follow-up duration. For the VIDA six-year follow-up report, the team pre-specified one confirmatory outcome in each of two domains: (1) *receipt of a college credential after eight or more months of full-time-equivalent (FTE) college enrollment by the 24th follow-up quarter* (education domain) and (2) *average quarterly earnings in the 23rd and 24th follow-up quarters* (employment domain).

Secondary hypotheses address a limited number of additional important indicators of program success. Given VIDA's explicit focus on relatively long college credentials compared to other sites, the secondary outcomes in the education domain include *receipt of an associate degree or higher by the 24th follow-up quarter, average total months of college enrollment in Years 1-7,* and *average total FTE months of college enrollment in Years 1-7*. The secondary outcomes in the employment domain are *average quarterly earnings of $6,825 or more in the 23rd and 24th follow-up quarters* (an indicator of full-time employment at $15/hour), *average total earnings in each of follow-up Years 4-7, working full-time, working in a job that offers all five listed job benefits,* and *access to career network*. Secondary outcomes in the financial well-being domain include *ability to handle a financial emergency of $400 from a checking or savings account, average total debt, extent of financial distress,* and *receipt of means-tested public benefits*.

Exploratory hypotheses address a larger number of possible outcomes of interest. Examples of exploratory outcomes at six years of follow-up are employment and earnings in a variety of other years and quarters, additional measures of college enrollment and credential receipt, other measures of financial well-being, and several measures related to parenting and child well-being.

To publicly commit to hypotheses and an estimation approach, the research team published an analysis plan (Fein, Judkins, and Buron 2021) on the Open Science Framework website and the OPRE website and registered confirmatory and secondary outcomes before the research team began estimating six-year impacts.[13] Doing so also aligns with ACF's commitment to promote rigor, relevance, transparency, independence, and ethics in the conduct of evaluations.[14]

Influence of COVID-19. Starting in March 2020, a global outbreak of the coronavirus SARS-CoV-2 began to spread rapidly in the U.S. The resulting disease – COVID-19 – created a massive economic downturn. By April 2020, the unemployment rate rose to 14.8 percent, a level not seen since the Great Depression, and remained above 6 percent through April 2021.[15] Many key measures in this report concern outcomes occurring at the end of a seven-year follow-up period. About 20 percent of the VIDA sample enrolled in the study towards the end of the enrollment period (the third quarter of 2013 through the second quarter of 2014). For this subset of study participants, the seven-year follow-up window included the second and third

[13] https://osf.io/s97jt/

[14] ACF's Evaluation Policy is available here: https://www.acf.hhs.gov/opre/report/acf-evaluation-policy

[15] See https://data.bls.gov/timeseries/LNS14000000.

quarters of 2020, which were affected by the COVID-19 pandemic. Thus, the seven-year earnings outcomes for 20 percent of the sample potentially could have been affected by COVID-19.

To investigate whether the COVID-19 pandemic may have affected VIDA's impact, the research team estimated earnings impacts by calendar quarter. As documented in Supplemental Exhibit S-4, VIDA had no detectable impact on quarterly earnings in 2019 or 2020; thus, the research team did not further investigate the pandemic's effects on program impacts.

1.3.2 Analysis Approach and Data Sources

VIDA impact analyses use survey and administrative data to measure impacts as differences in mean outcomes between the randomly assigned treatment and control groups. Although random assignment ensures that there will be no systematic differences between the treatment and control group members' characteristics at "baseline" (study entry), the analysis nonetheless controls for baseline characteristics to minimize any effects of chance differences arising from random assignment and to improve the precision of impact estimates.

The data sources for this report are:

Baseline surveys. All study participants completed the Basic Information Form, which VIDA had incorporated into its application. This form captured demographic information, family characteristics, educational history, and work and earnings information. Study participants also completed at baseline the Self-Administered Questionnaire to collect sensitive personal information such as training commitment and academic confidence.[16] As in prior reports, the research team used the baseline data for subgroup analyses, nonresponse analysis, and regression adjustment of impact estimates.

Earlier follow-up surveys. The report draws on measures from the short-term (18-month) and intermediate (three-year) follow-up surveys. Specifically, some measures blend data from both surveys. For example, the *receipt of a professional certification or licenses from an institution other than a school* measure combines data on such credentials reported in the short-term survey, the three-year survey, and the six-year survey.

Six-year follow-up survey. This survey targeted all 958 VIDA study participants. It measured participant outcomes and program impacts on employment progression, educational attainment, current employment conditions, student debt, financial well-being, and other life circumstances six years after that random assignment. The response rate was 77 percent overall (81 percent

[16] VIDA staff administered the program's application, which contained the Basic Information Form, on paper and then entered it into VIDA's online database. Because the Self-Administered Questionnaire asked for personal information (criminal records, psycho-social skills, social support, career orientation and knowledge, and personal and family challenges), study participants filled out a paper form and then placed it in a sealed envelope that VIDA staff sent to Abt Associates for data entry.

for the treatment group and 73 percent for the control group).[17] Appendix B provides detailed descriptions of the six-year outcomes used in this report.[18]

Administrative records. The report draws on data from two administrative records systems. The *National Student Clearinghouse (NSC)* collects data on student enrollment, degrees earned, and other credential completion from most U.S. institutions of higher education.[19] NSC data provide key measures of college enrollment and credential receipt for the report and figure into certain technical data adjustments.[20] Like most administrative data, the underlying records are limited in coverage and content in accordance with the administrative system's purposes.[21] This report draws on a July 2021 match of the study sample to NSC records.

The *National Directory of New Hires (NDNH)* aggregates wage records reported on a quarterly basis to states by employers under Unemployment Insurance program requirements. These records are a key source for earnings and employment data in this report. Maintained by the federal Office of Child Support Enforcement within ACF, NDNH wage records cover most private employers as well as the federal civilian and military workforce. This report draws on a June 2021 match of the study sample to NDNH records.[22]

1.3.3 Characteristics of Study Participants

Exhibit 1-1 compares characteristics of treatment and control group members at study entry. The *p*-values in the right-most column indicate that the evaluation's random assignment procedure produced treatment and control groups with two detectable differences in these characteristics (baseline measures of current education and current work hours per week).[23]

The VIDA study sample closely reflects the program's eligibility criteria. At application, sample members had low incomes: approximately half had annual household incomes of less than $15,000, and more than 85 percent had incomes of less than $30,000 at the time they enrolled

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17 The response rate yielded survey responses for 732 study participants (387 in the treatment group and 345 in the control group). The median response was collected 72 months after random assignment.

18 The technical appendices are in a separate volume (Judkins, Roessel, and Durham forthcoming). The full survey instrument is available at https://www.reginfo.gov/public/do/PRAViewIC?ref_nbr=201802-0970-010&icID=227184.

19 Designed to aid the administration of student loan programs, researchers also use NSC data to study college access, persistence, and credential receipt.

20 Appendix C describes these technical applications, which mainly involve nonresponse analysis and weighting.

21 For example, because NSC is used mainly to verify federal financial aid eligibility, its coverage is generally very high but lower for private, for-profit colleges that do not rely on federal aid. Federal aid is limited to accredited, degree-granting institutions, so NSC also does not cover other kinds of schools.

22 Appendix D provide additional details on NDNH data.

23 Given the number of tests, the number of statistical differences (2 of 11) is about what we would expect by chance.

into the study. About two thirds received benefits from the Supplemental Nutrition Assistance Program (SNAP) or Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).

Most study participants were not working or were working less than full-time at the time of random assignment. About two thirds of the sample reported experiencing financial hardship in the year preceding random assignment.[24]

Exhibit 1-1: Selected Characteristics of the VIDA Study Sample at Baseline

Characteristic	All Study Participants	Treatment Group	Control Group	*p*-Value
Age (%)				0.222
20 or younger	14.1	12.3	15.8	
21 to 24	22.9	24.3	21.5	
25 to 34	40.6	39.3	41.9	
35 or older	22.4	24.1	20.8	
Gender (%)				0.410
Female	70.9	69.7	72.1	
Male	29.1	30.3	27.9	
Race/Ethnicity (%)				0.235
Hispanic, any race	95.8	95.6	96.0	
Black, non-Hispanic	0.9	0.4	1.3	
White, non-Hispanic	3.0	3.6	2.4	
Another race, non-Hispanic	0.1	0.2	0.0	
Current Education (%)				0.038
Less than a high school diploma	0.7	0.2	1.3	
High school diploma or equivalent	26.1	23.0	29.2	
Less than 1 year of college	15.8	17.0	14.6	
One or more years of college	52.7	55.7	49.7	
Associate degree or higher	4.7	4.2	5.3	
Family Income in Past 12 Months (%)				0.238
Less than $15,000	50.9	49.6	52.3	
$15,000 to $29,999	36.5	39.0	34.0	
$30,000 or more	12.6	11.5	13.8	
Mean ($)	$16,376	$16,277	$16,474	0.813
Public Assistance / Hardship in Past 12 Months (%)				
Received WIC or SNAP	67.6	66.5	68.8	0.442
Received public assistance or welfare	5.5	6.0	5.0	0.501
Reported financial hardship[a]	67.2	66.5	67.9	0.630
Current Work Hours Per Week (%)				0.017
0	64.9	62.8	67.0	
1 to 19	11.8	10.9	12.8	
20 to 34	14.8	18.4	11.1	
35 or more	8.5	7.9	9.1	

[24] *Financial hardship* is defined as ever missed rent/mortgage payment in prior 12 months or reported generally not having enough money left at the end of the month to make ends meet over the last 12 months.

Characteristic	All Study Participants	Treatment Group	Control Group	*p*-Value
Expected Work Hours Per Week in Next Few Months (%)				0.321
0	55.3	53.7	56.8	
1 to 19	12.6	11.5	13.6	
20 to 34	21.0	23.3	18.8	
35 or more	11.2	11.5	10.8	
Sample size	958	478	480	

Key: SNAP = Supplemental Nutrition Assistance Program. WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Source: PACE Basic Information Form.

[a] *Financial hardship* is defined as ever missed rent/mortgage payment in prior 12 months or reported generally not having enough money left at the end of the month to make ends meet over the last 12 months.

Note: There are two statistically significant differences at the *p*=.10 level (Current Education, Current Work Hours per Week). Given the number of tests, the number of statistical differences (2 of 11) is about what we would expect by chance. Some percentages for characteristics do not add up to 100 percent due to rounding. Public Assistance/Hardship in Past 12 Months does not add to 100 percent because the categories are neither mutually exclusive nor exhaustive. See Appendix A in the separate appendix volume (Judkins, Roessel, and Durham forthcoming) for more details on baseline characteristics.

The majority of sample members had attended college before enrolling in VIDA, including more than half who had a year or more of college. As noted above, local colleges often referred current students to VIDA and the program used a variety of approaches to outreach to the broader community. Virtually all study participants had at least a high school diploma or equivalent.

Study participants were older than traditional college students: more than 60 percent were age 25 and older, and more than one fifth were age 35 or older. The majority of study participants (about 70 percent) were female. Almost all identified as Hispanic (96 percent), reflecting the population of the Lower Rio Grande Valley, which is about 90 percent Hispanic.

1.4 Findings from Earlier PACE Reports on VIDA

The VIDA *Implementation and Early Impact Report* (Rolston et al. 2017) and *Three-Year Impact Report* (Rolston et al. 2021) provide useful context for the current report. The first report assessed VIDA's implementation and 24-month impacts on education and career-pathway employment. The second report documented three- and four-year impacts on education outcomes, entry into career-track employment and higher earnings, and individual and family well-being.

The implementation study found that VIDA operated as designed: most treatment group members participated in training and received financial assistance. Nearly all treatment group members (98 percent) participated in some education or training activity, which included both basic skills education in the College Prep Academy and occupational training. Ninety-one (91) percent of treatment group members earned at least one college credit, and 66 percent completed 30 or more college credits (by some standards, the equivalent of a year of full-time college).

Of treatment group members who engaged in occupational training, three-quarters participated in nursing or allied health training, according to VIDA administrative records. Half of those enrolled in healthcare training pursued nursing programs, including Licensed Vocational Nurse

(LVN) certificate programs, Associate Degree in Nursing (ADN) programs, and an LVN to ADN pathway program. Other health programs included certificate and associate degree programs for Radiology Technician, Respiratory Therapist, and Health Information Technology. Among the quarter of participants not training for health care, common programs included education and social services; specialized trades (e.g., Heating/Ventilation/Air Conditioning, Refrigeration Technician, and Automotive Technician); business (e.g., Office Management, Accounting); and technology.

In the twenty-four months after random assignment, VIDA provided financial assistance to 99 percent of treatment group members. VIDA spent an average of $7,400 per participant over the course of each individual's engagement in the program. Of the participants who received financial assistance, almost all (99 percent) received assistance with tuition and related expenses of attending and completing training. Other common types of financial assistance included paying for books (89 percent) and transportation to and from school (88 percent).[25]

Qualitative information from program observations by the PACE research team and site-visit interviews with staff and participants suggests that treatment group members received a substantial dose of individual and group counseling. VIDA staff describe the program as a set of generous incentives and participant requirements that interact to sustain students to completion of credentials. Qualitative interviews with participants aligned with this description.

VIDA increased receipt of a college credential requiring a year or more of training and had positive impacts on many other education outcomes. Three years after random assignment, VIDA had a 9 percentage point impact on receipt of credentials requiring a year or more of college: 61 percent of the treatment group received such a credential, compared to 52 percent of the control group. Compared to members of the control group, VIDA increased for the treatment group full-time-equivalent college enrollment (2 months), college credits (6 credits), and receipt of an associate degree or higher (7 percentage points). VIDA had unexpected substantial positive impacts on college enrollment in the fourth year after random assignment, a period in which most treatment group member were no longer participating in the program.

VIDA did not have a detectable impact on earnings and affected few other employment-related outcomes. In Quarters 12-13 both the treatment and control groups earned somewhat over $6,000. As expected, in quarters 2 through 5, a period in which VIDA had large positive enrollment impacts, the program had negative impacts on earnings. From quarter 6 through 16, there were no positive or negative impacts on earnings.

As expected by the theory of change, a smaller proportion of the treatment group worked than did the control group in a period of high levels of active participation in VIDA (quarters 3 through 6), but not afterwards. At three years, VIDA increased the proportion of treatment group members working in jobs requiring at least mid-level skills by almost 6 percentage points: 44

[25] VIDA provided participants an average of $7,421 in financial assistance to offset the cost of college attendance. The largest amount was for tuition and related fees ($5,252). The 60 percent of VIDA participants who were eligible for Pell grants in excess of tuition and fee costs could use the excess for living expenses (Rolston et al. 2021).

percent of the treatment group versus 39 percent of the control group. But the program did not affect average hourly wages.

VIDA had few effects on other economic outcomes. Consistent with the prominent role of enhanced financial support in the program, VIDA reduced participants' student debt by slightly more than $1,100, or $3,312 in the treatment group compared to $4,416 in the control group. But it had few effects on other financial outcomes, such as signs of financial distress or receipt of means-tested benefits.

For women, VIDA decreased the likelihood of childbearing or living with a spouse or partner. Three years after random assignment, 22 percent of women in the treatment group versus 31 percent of women in the control group (a 9 percentage point decrease) had a child since study enrollment or were pregnant at the time of the survey. This impact appears to have been driven by women having fewer first children: women in the treatment group were 11 percentage points more likely than women in the control group to have no children in the household.

After three years, participants in the treatment group were also less likely to be living with a spouse or partner (46 percent versus 55 percent). This was primarily driven by non-formation, rather than break-up of existing relationships. The overall decrease was driven entirely by treatment group women, who were 14 percentage points less likely than control group women to be living with a spouse or partner. Positive impacts on enrollment were larger for women than men in Year 3, suggesting that treatment group women may have chosen to invest in their education, possibly inducing a delay in childbearing and marriage/partnering.

The three-year findings raise several key questions that the longer-term follow-up in this report address. First, are the impacts on credentials requiring a year or more of college sustained or perhaps do they even grow due to the ongoing positive enrollment impacts? Second, do the fourth-year enrollment impacts fade, potentially allowing treatment group members to devote more time to work? And, finally, and most importantly, do positive credential impacts translate into detectable positive earnings impacts?

1.5 Organization of this Report

The remainder of this report presents and assesses the implications of VIDA's impacts over a six-year follow-up period. Chapters 2, 3, and 4 present the main findings on impacts in the education, employment, and other life domains, respectively. Chapter 5 summarizes the findings, explores possible explanations of them, and discusses implications for program operators and researchers.

The report references technical appendices in a separate volume (Judkins, Roessel, and Durham forthcoming) that provides details on the common methodology used to report on the six-year impacts of the nine programs evaluated in the PACE project.

The text box *How to Read Impact Tables* below describes how to navigate and understand the tables in the impact chapters.

How to Read Impact Tables

Many exhibits in Chapters 2-4 follow a common format in reporting impacts.

The left-most column identifies the **Outcome** whose findings appear in each row.

The next column (**Treatment Group**) presents the treatment group's regression-adjusted mean outcome, followed in the next column by the control group's actual mean outcome (**Control Group**). Regression adjustment corrects for random variation in baseline covariates between the two groups and improves the precision of the estimates.

The next column (**Impact**) is the difference between the treatment and control group means—that is, the impact of being offered VIDA. The **Standard Error** column is a measure of uncertainty in the estimated impact that reflects chance variation due to randomization and any measurement error. The column labeled **Relative Impact** presents the impact as a percentage change from the control group mean. It offers a sense of how "big" or "small" the impact of the program on the treatment group is, at least relative to the control group's level.

For outcomes with no natural unit of measurement we report an **Effect Size** instead of the relative impact. The effect size is a standardized measure that defines impacts as a fraction of the pooled standard deviation across the treatment and control groups. It offers a sense of the size of the impact relative to how much the outcome varies across the full sample and allows for comparison of the size of the impact across scale outcomes.

The final column, ***p*-Value**, is the probability that the observed or a larger difference between the treatment and control groups would occur by chance, even if there was in reality no difference between the two groups.

Statistical significance

This report identifies estimated impacts as statistically significant if their associated *p*-values are below .10. The smaller the *p*-value, the more likely that the observed difference between the treatment and control groups is real, rather than occurring by chance. Asterisks distinguish results that are statistically significant:

* at the 10 percent level ($p<.10$)

** at the 5 percent level ($p<.05$)

*** at the 1 percent level ($p<.01$)

Categories of findings

Tests of statistical significance for confirmatory and secondary outcomes are one-sided tests because their associated hypotheses have direction. The impact tables highlight these outcomes using **bolded text.** Tests of significance for exploratory outcomes are two-sided, because we do not have a directional hypothesis. Tables present these outcomes using regular (not bolded) text.

2. Impacts on Postsecondary Education and Training

This chapter presents the impact of VIDA on postsecondary education and training for the six-year follow-up period. The chapter also includes analyses through seven years after random assignment for administrative data outcomes.

The career pathways theory of change as applied to VIDA posits that the high level of personal, academic, and financial support provided by the program will enable participants to attend and persist in college and obtain longer-term college certificates and degrees. Given VIDA's focus on longer-term college certificates and degrees, we judged that the best measure of VIDA's success in the education domain after six years is the outcome: *receipt of a college credential after eight or more months of full-time-equivalent (FTE) college enrollment by the 24th follow-up quarter.* These include both associate and higher degrees, as well as sub-degree certificates following eight or more months of FTE enrollment.[26]

This measure was pre-registered as the confirmatory education outcome. The evaluation measures this outcome using the National Student Clearinghouse (NSC) and is a proxy for receipt of college credentials requiring a year or more of study to earn, which was the confirmatory outcome at three years.[27] In addition, we report impacts on secondary and exploratory measures of credential receipt and enrollment.

2.1 Credential Receipt

This section presents the impacts on credentials, beginning with the confirmatory outcome. It then describes impacts on other types of credentials, including college degrees and non-college credentials.

VIDA had a 12 percentage point impact on receipt of college credentials after eight or more months of full-time-equivalent (FTE) enrollment, and an 8 percentage point impact on receipt of an associate degree or higher. Six years after random assignment, 66 percent of those in the treatment group had earned a college credential after eight or more months of FTE enrollment, compared to 55 percent of the control group (Exhibit 2-1). This 12 percentage point increase represents a 21 percent relative impact over the control group. VIDA also increased receipt of an associate degree or higher by 8 percentage points (49 percent of the treatment group versus 41 percent of the control group; Exhibit 2-1). These impacts are among the largest observed at the same point of follow-up in randomized trials of college completion

[26] The condition of "after eight or more months of full-time-equivalent (FTE) college enrollment" applies only to certificates on the assumption that associate degrees or higher require at least that much time and typically much more.

[27] The first two VIDA reports relied on data from VIDA's local college partners to estimate impacts on college credentials.

programs (Dawson et al. 2021, Roder and Elliott 2020, Weiss et al. 2019).[28] They provide strong evidence that VIDA met its primary educational goal of increasing receipt of college certificates and degrees among program participants.[29]

Exhibit 2-1: Impact on College Credentials

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Confirmatory Outcome: Received college credential preceded by 8+ FTE months of enrollment by Q24 (%)	66.4	54.8	+11.6 ***	2.9	21.2	<.001
Received associate degree or higher by Q24 (%)	48.9	40.6	+8.3 ***	3.0	20.4	0.003
Received any college credential after year 3 (%)	21.2	17.1	+4.1	2.6	23.9	0.116
Sample size	478	480				

Source: National Student Clearinghouse.
Note: Rows in **bold** identify confirmatory and secondary outcomes. Hypothesis tests are one-sided for confirmatory and secondary outcomes and two-sided for other (exploratory) outcomes. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

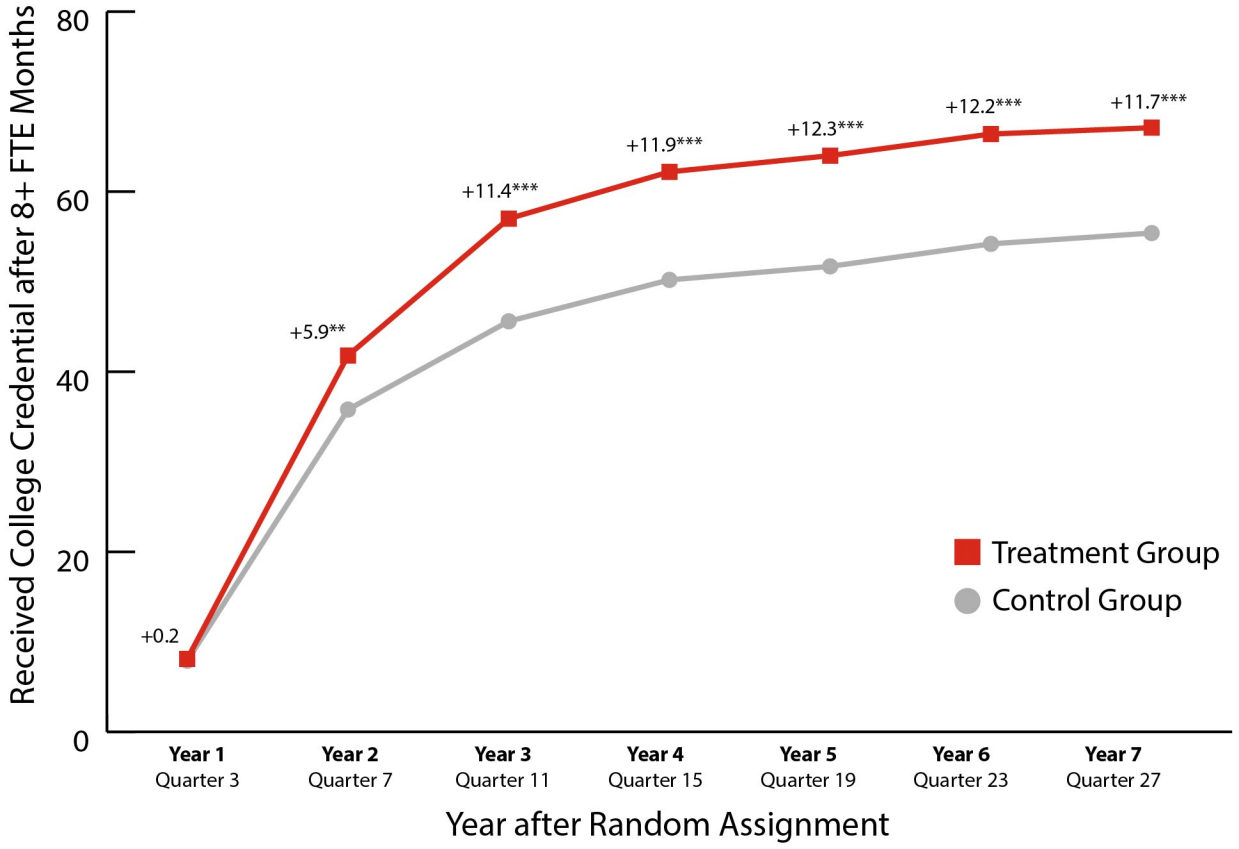
The impact on college credentials requiring a year or more of study did not increase beyond 12 percentage points from the end of three years to the end of six years. Despite positive impacts on college enrollment in each of the first five years (see Exhibit 2-4 below), this enrollment impact did not lead to larger impacts on the cumulative impact on credentials after Year 3. VIDA's impact on college credentials exhibited no sign of growth over the last four years of follow-up; the stability of impacts on credentials implies that there was no control group catch-up. (Exhibit 2-2).[30] Most study participants who earned college credentials—which, as shown in Exhibit 2-1, were primarily associate degrees or higher—received them within the first three years after random assignment. Although about one-fifth of VIDA participants earned a credential after three years, consistent with the stability of the overall impact, the program had no detectable impact on receipt of a college credential after Year 3 (Exhibit 2-1).

[28] Dawson et al. (2021) summarizes the impacts of eight college completion interventions. Of the programs the authors review, only CUNY ASAP and QUEST have substantial, significant impacts on completion. At six years (not in the summary), CUNY ASAP had a 10 percentage point impact on associate degrees and QUEST had an 11 percentage point impact on credentials typically requiring a year or more of study. (The paper presents much larger impacts on degree completion for Stay the Course, but these are treatment-on-treated estimates for the women's subgroup. The full sample intent-to-treat impact at the point of follow-up closest to this report (eight semesters) for the full sample was 1.4 percent and for women 5.8 percent, and both were non-significant.)

[29] Chapter 5 includes an examination of the size of the credential impacts from the perspective of their potential to lead to detectable earnings gains.

[30] By contrast, see Weiss et al. (2019).

Exhibit 2-2: Impact on Cumulative Percentage of Participants Receiving a College Credential after 8+ FTE Months of College Enrollment



Source: National Student Clearinghouse.
Note: All hypothesis tests are based on two-sided tests. Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

VIDA had no detectable impact on receipt of credentials from non-college providers or from licensing or certification bodies. According to the survey, VIDA did not have a detectable impact on receipt of credentials from a non-college education or training provider or from a licensing or certification body (Supplemental Exhibit S-1). Given the program's impact on credentials, the latter finding is surprising, because many of the occupations for which credentials were earned require a license to practice.

2.2 College Enrollment

This section presents impacts on college enrollment. In the three-year report, we found that enrollment impacts persisted through the fourth year after random assignment. A key question in this report is whether enrollment impacts continued beyond Year 4 or dissipated.

VIDA increased cumulative FTE months of college enrollment by about three months. Consistent with the impact on credential receipt, VIDA increased the duration of college enrollment. Between random assignment and the end of Year 7, treatment group members attended college for 19 FTE months, compared to 16 months for the control group (Exhibit 2-3). This 3 month increase represents an 18 percent relative impact over the control group. VIDA produced similar relative impacts in total months with any college enrollment (27 months for the

treatment group versus 23 months for the control group) and total months with any full-time college enrollment (12 months for the treatment group versus 10 months for the control group).[31]

Exhibit 2-3: Impact on Cumulative College Enrollment

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Total months with any college enrollment across years 1-7	27.2	22.9	+4.3 ***	1.1	18.7	<.001
Total months with any full-time college enrollment across years 1-7	11.7	10.0	+1.7 ***	0.7	17.4	0.005
Cumulative FTE months of college enrollment across years 1-7	19.2	16.2	+3.0 ***	0.8	18.3	<.001
Sample size	478	480				

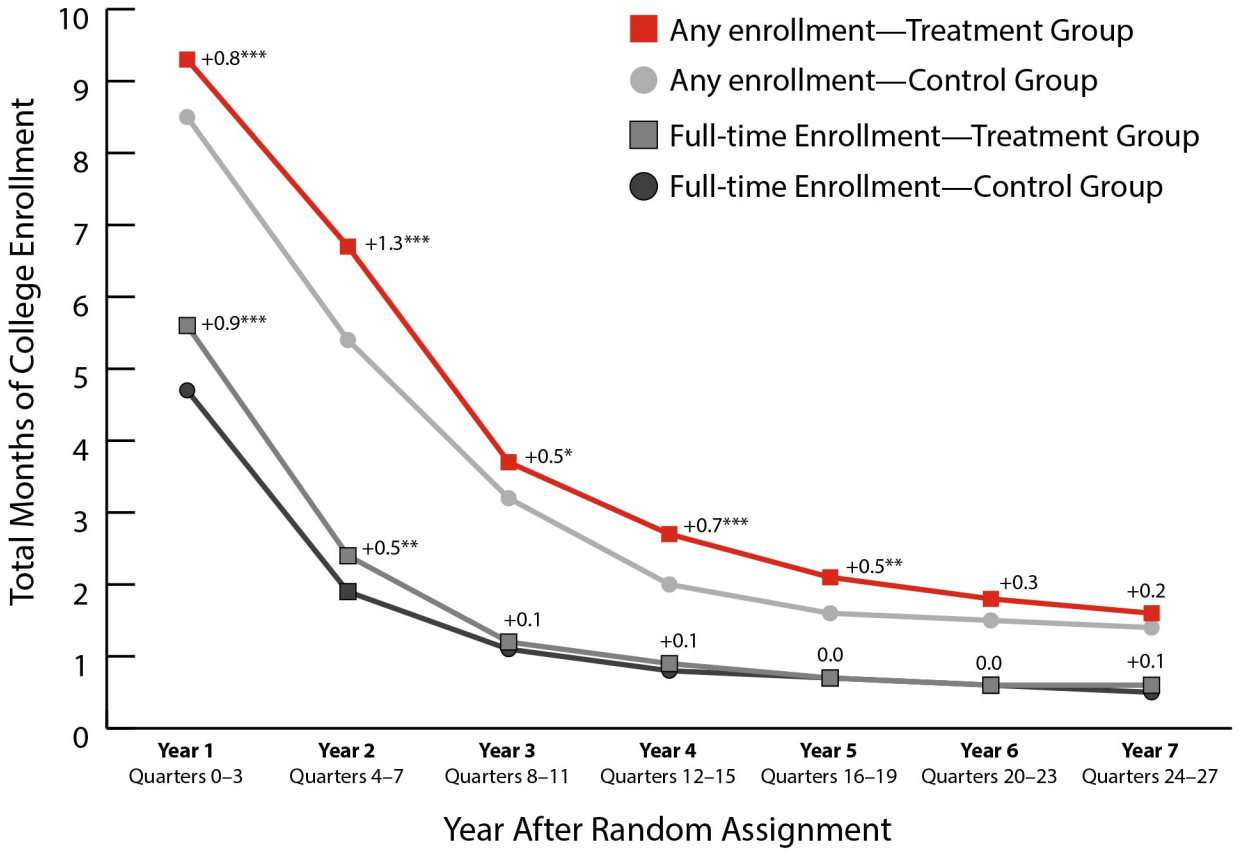
Source: National Student Clearinghouse.
Note: Rows in bold identify secondary outcomes. Hypothesis tests are one-sided for secondary outcomes. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

Impacts on college enrollment persisted through the 5th year after random assignment, then dissipated. VIDA produced an impact on total months with any college enrollment in each of the five years after random assignment but did not have a detectable impact on enrollment in Years 6 or 7 (Exhibit 2-4). By Year 6, less than 20 percent of participants were still enrolled in college in each quarter (Supplemental Exhibit S-2). There was no detectable impact on full-time college enrollment after two years. At the end of the second year, 65 percent of participants were no longer in VIDA, and so not subject to its full-time requirement, and this grew to 85 percent by the end of the third year.[32]

[31] The substantial gap between actual full-time enrollment (12 months) and FTE enrollment (19 months) for treatment group members is a result of a high level of part-time enrollment after VIDA participants exited the program—and its requirement for full time participation. See Exhibits 2-4 and 2-5.

[32] Exits from the program included those who completed and graduated as well as those who stopped participating in VIDA without completing, whether of their own volition or for not complying with program requirements. See footnote 30 on page 23 of the VIDA Three-year Impact Report.

Exhibit 2-4: Impact on College Enrollment by Year



Source: National Student Clearinghouse.
Note: All hypothesis tests are based on two-sided tests. Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

VIDA increased the share of participants who earned a college credential and subsequently enrolled in additional training. After six years, 43 percent of the treatment group earned a college credential and subsequently enrolled in 4 or more months of college classes (any level of enrollment, not necessarily full-time), compared to 32 percent of the control group. The impact of 11 percentage points represents a 36 percent increase over the control group (Exhibit 2-5). Notably, most of these credentials were longer-term: 37 percent of the treatment group earned a college credential preceded by 8+ FTE months of enrollment and subsequently enrolled in 4 or more months of college classes, compared to 27 percent of the control group, for an impact of 10 percentage points. This subsequent enrollment was unexpected, as the goal of VIDA was to help participants earn credentials that qualified them for good-paying jobs in high demand. In Chapter 5, we explore VIDA participant enrollment subsequent to earning a credential for a subset of the sample.

Exhibit 2-5: Impact on Multiple Education Steps

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Earned any college certificate or degree and subsequently enrolled 4+ months by Q24 (%)	42.6	31.5	+11.2 ***	3.0	35.5	<.001
Earned college credential preceded by 8+ FTE months of enrollment and subsequently enrolled 4+ months by Q24 (%)	36.7	26.5	+10.2 ***	3.0	38.7	<.001
Sample size	478	480				

Source: National Student Clearinghouse.
Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

3. Impacts on Earnings and Employment

The career pathways theory of change as applied to VIDA suggests that positive impacts on college credentials will enable participants to find employment in jobs that pay well and so lead to positive impacts on earnings. In as much as VIDA has a positive impact on full-time enrollment (as required by the program), treatment group members would likely earn less than their counterparts in the control group initially. After VIDA participants complete their occupational programs, the additional skills and credentials gained during the program should lead them to earn more than control group members over time.

As described in Chapter 2, VIDA had significant positive impacts on credential receipt and total months of enrollment. Most credentials were earned by the end of the third year after random assignment, and there was no detectable impact on ongoing enrollment in the fifth and sixth years after random assignment. Therefore, sufficient time should have elapsed for the observed education impacts to translate into impacts on earnings and employment outcomes.

The confirmatory earnings outcome for this long-term report in the employment domain is *average quarterly earnings in the 23rd and 24th follow-up quarters*. This outcome aims to be one comprehensive measure of participants' labor market experiences, capturing both the amount of work and wage rate. This chapter presents impacts on earnings (Section 3.1) and on employment and job characteristics (Section 3.2).

3.1 Earnings

This section presents the impacts on earnings, beginning with the confirmatory outcome.

VIDA did not produce a detectable increase in average quarterly earnings in the 23rd and 24th follow-up quarters or in any of the first seven follow-up years. In the 23rd and 24th follow-up quarters, treatment group members earned about $8,400 per quarter, which was not detectably different from the control group (Exhibit 3-1). Consistent with the fact that treatment group members were more likely to be enrolled in college than control group members, in the first two follow-up years, VIDA produced a negative earnings impact. Although average treatment group annual earnings rose sharply from roughly $5,000 in Year 1 to about $35,000 in Year 7, control group earnings rose at about the same pace. Thus, starting in Year 3 and continuing through Year 7, there was no detectable impact on annual earnings (Exhibit 3-1).[33]

As is true with all estimates, the confirmatory earnings impact was estimated with uncertainty. When we incorporate that uncertainty into a range of plausible impacts, we estimate that the

[33] To explore the possibility that earnings impacts might emerge after year 7, we estimated impacts for the 80 percent of sample members who enrolled in June 2013 or earlier ("the early cohort") for whom we observe 8 years of earnings outcomes. We found no detectable impact on earnings in year 8 for the early cohort, and point estimates for the four quarters ranged from -$31 to -$624.

true impact on quarterly earnings could be as positive as +$756 or as negative as −$612 in quarters 23 and 24.[34]

Exhibit 3-1: Impact on Earnings

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Confirmatory Outcome: Average quarterly earnings in quarters 23 and 24 ($)	$8,409	$8,337	+$72	$416	0.9	0.431
Average quarterly earnings of $6,825 or more in quarters 23 and 24 (%)[a]	56.3	52.0	+4.3*	3.0	8.3	0.079
Average total earnings ($) in follow-up:						
Year 1 (quarters 0-3)	$5,082	$5,944	−$861*	$519	−14.5	0.097
Year 2 (quarters 4-7)	$10,629	$12,256	−$1,627*	$834	−13.3	0.051
Year 3 (quarters 8-11)	$18,999	$20,883	−$1,884	$1,150	−9.0	0.102
Year 4 (quarters 12-15)	$24,879	$26,409	−$1,531	$1,400	−5.8	0.863
Year 5 (quarters 16-19)	$30,303	$29,670	+$633	$1,530	2.1	0.340
Year 6 (quarters 20-23)	$32,509	$32,308	+$200	$1,610	0.6	0.450
Year 7 (quarters 24-27)	$35,206	$35,525	−$319	$1,768	−0.9	0.572
Years 1-7	$157,682	$163,346	−$5,664	$7,124	−3.5	0.427
Sample size	476	479				

Source: National Directory of New Hires.
Note: Rows in bold identify confirmatory and secondary outcomes. Other rows are exploratory. Hypothesis tests are one-sided for confirmatory and secondary outcomes and two-sided for other (exploratory) outcomes. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]).
Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.
[a]The $6,825 cut-point identifies earnings consistent with full-time employment (35 hours/week) at a career-entry wage level ($15/hour) throughout the quarter.
Data for Year 7 are missing for about 3 percent of the sample.

VIDA increased the share earning above $6,825 in the 23rd and 24th follow-up quarters, but this may be due to chance. Fifty-six percent of the treatment group earned more than $6,825 per quarter (equivalent to $15/hour for 35 hours/week) in the 23rd and 24th follow-up quarters, compared to 52 percent of the control group (Exhibit 3-1). However, this impact may be a chance finding—in each individual quarter after random assignment, including Q23 and Q24, there was no detectable impact on the share earning more than $6,825 per quarter (Supplemental Exhibit S-3). By chance, the impacts in Q23 and Q24 are just large enough that combining the two quarters together generates a detectable impact; this is not true for any other combination of consecutive quarters. We therefore conclude that it is plausible that VIDA did not have a true effect on the share earning above $6,825.

3.2 Employment and Job Characteristics

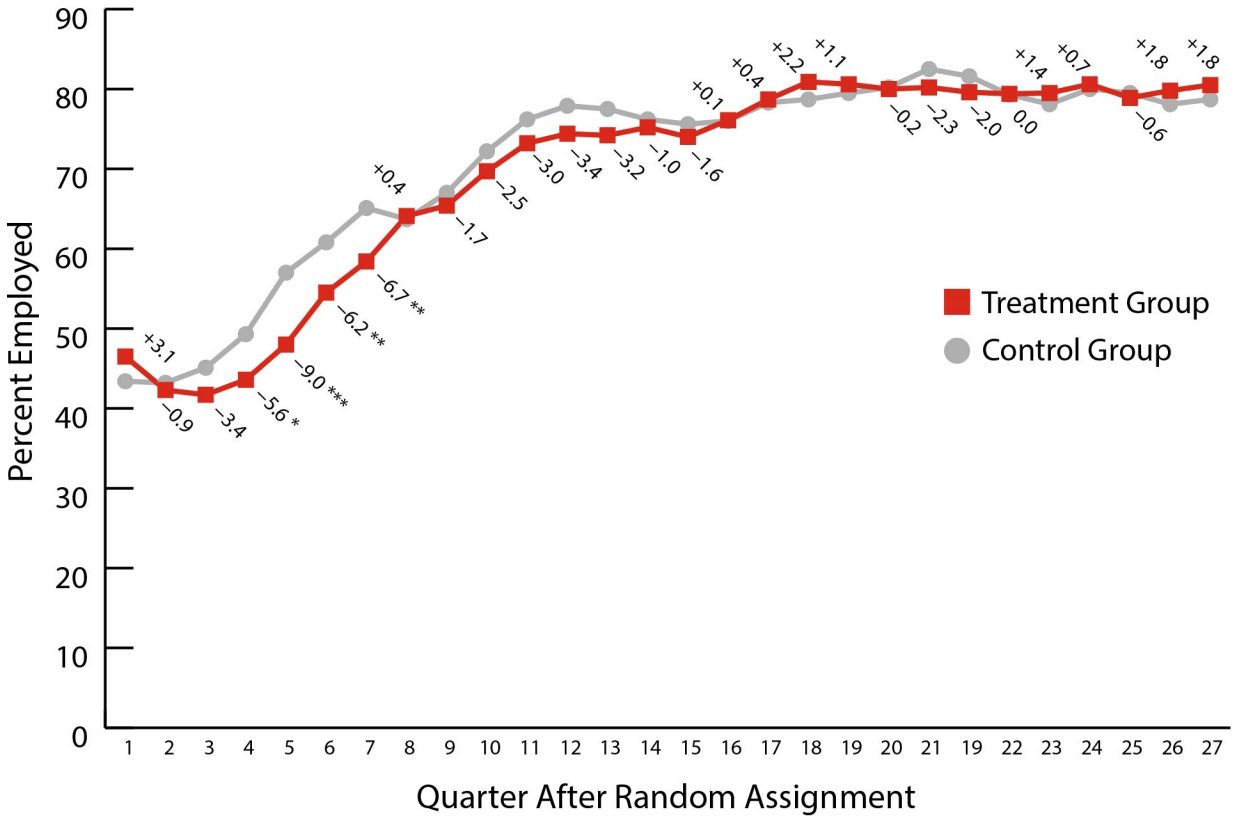
This section presents impacts on measures of employment and job characteristics. The research team measured employment-related outcomes using both administrative (NDNH) and follow-up survey data. The administrative data provide high quality information on employment by quarter, while the six-year follow-up survey captures information on aspects of employment

[34] These values are the endpoints for a 90 percent confidence interval for average earnings in quarters 23 and 24.

such as employee benefits and indicators of job quality that are unavailable in the administrative data.[35]

VIDA did not produce a detectable increase in employment by quarter. As expected by the theory of change, a smaller proportion of the treatment group worked than did the control group in a period of high levels of active participation in VIDA (Exhibit 3-2). For each of quarters 3 through 6, there were negative impacts on the treatment group's employment rate, ranging from 6 to 9 percentage points. In all other quarters, the study found no detectable impacts on employment.[36] This pattern is consistent with patterns of earnings impacts.

Exhibit 3-2: Impact on Employment by Quarter



Source: National Directory of New Hires.
Note: All hypothesis tests are based on two-sided tests. Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

VIDA did not have a detectable impact on hours worked or hourly wage. Consistent with the results from administrative data, VIDA did not have detectable impacts on hours worked or hourly wages in the prior week as reported by survey respondents (Exhibit 3-3). On average,

[35] The benefits of administrative data over survey data include that the former are not subject to recall or survey non-response bias, and they yield larger analysis samples because they are not subject to non-response.

[36] As with earnings, we estimated 8-year employment impacts for the early cohort and found no detectable impacts.

both treatment and control groups worked for about 32 hours per week and earned about $20 per hour.

Exhibit 3-3: Impact on Hours Worked, Wages, and Weekly Earnings

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Hours working per week (%)						
Not currently employed	17.7	19.3	−1.6	2.9	−8.2	0.582
1-19 hours	2.7	3.3	−0.6	1.3	−19.2	0.610
20-34 hours	13.4	9.8	+3.6	2.4	36.2	0.142
35+ hours	66.0	67.3	−1.3	3.5	−1.9	0.706
Total	100.0	100.0				
Average weekly hours	31.9	31.9	+0.1	1.3	0.3	0.951
Median weekly hours	40.0	40.0	+0.0	1.3	0.1	0.982
Hourly wages if employed (%)						
$1-9	9.7	10.9	−1.2	2.6	−11.1	0.644
$10-14	21.9	25.9	−4.0	3.5	−15.4	0.250
$15-19	22.3	17.8	+4.5	3.4	25.3	0.184
$20-29	29.3	29.2	+0.1	3.7	0.3	0.979
$30-39	13.0	13.5	−0.5	2.8	−3.9	0.852
$40+	3.8	2.7	+1.1	1.4	41.0	0.412
Total	100.0	100.0				
Average hourly wage if employed ($)	20.33	19.82	+0.52	0.73	2.6	0.479
Median hourly wage if employed ($)	18.93	18.00	+0.93	0.89	5.2	0.294
Average earnings for week prior to interview ($)	654	645	+9	37	1.4	0.804
Median earnings for week prior to interview ($)	601	585	+16	54	2.8	0.761
Sample size (all respondents)	387	345				

Source: PACE six-year follow-up survey.
Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. Wage statistics in italicized rows are conditioned on employment and thus not purely experimental: Hence, they are not regression-adjusted. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

VIDA had no detectable impact on other measures of job quality, but the program did increase self-assessed career progress and access to a career network. VIDA produced no impacts on other measures of job quality and career indicators—including working in jobs above certain wage thresholds, working in jobs offering benefits, or receiving promotions in the past three years (Exhibit 3-4). At the end of six years, the job characteristics of treatment and control group members were very similar.

Exhibit 3-4: Impact on Job Characteristics

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error		*p*-Value
Positive Employment Outcomes					Relative Impact (%)	
Working full-time (35+ hours/week) (%)	66.0	67.3	−1.3	3.5	−1.9	0.647
Working in a job at or above $15/hour (%)	56.2	50.8	+5.4	3.6	10.7	0.128
Working in a job at or above $20/hour (%)	38.0	36.5	+1.5	3.4	4.2	0.654
Working in a job at or above $25/hour (%)	25.4	24.7	+0.7	3.1	2.9	0.815
Working in a job offering:						
Health insurance (%)	64.5	62.2	+2.2	3.6	3.6	0.527
Paid vacation (%)	61.7	61.9	−0.2	3.6	−0.3	0.954
Paid holidays (%)	57.6	60.6	−3.1	3.7	−5.1	0.406
Paid sick days (%)	54.7	52.4	+2.3	3.8	4.3	0.549
Retirement or pension benefits (%)	55.7	52.7	+3.1	3.7	5.8	0.411
All five benefits (%)	42.8	40.6	+2.2	3.8	5.5	0.279
Career Progress					Effect Size	
Perceived career progress (mean for 3-item scale w/values ranging 1-4)	3.30	3.19	+0.12 *	0.06	0.14	0.069
Access to career network (mean number of affirmative responses for 6 Y/N items)	3.56	3.23	+0.34 **	0.17	0.15	0.021
Other Career Indicators					Relative Impact (%)	
Received any promotions in the last three years (%)	22.5	27.2	−4.7	3.3	−17.2	0.159
Changed employers for better job in last three years (%)	9.6	13.0	−3.3	2.4	−25.8	0.170
Career connected[a] (%)	74.1	70.9	+3.2	3.3	4.5	0.331
Sample size (all survey respondents)	387	345				

Source: PACE six-year follow-up survey.

[a] Respondents are defined as "career connected" if they are either: employed full-time, training full-time, or both employed and training at least part-time.

Note: Rows in **bold** identify secondary outcomes. Hypothesis tests are one-sided for secondary outcomes and two-sided for other (exploratory) outcomes. Statistics under Relative Impact represent the impact as percentage of the control group mean (i.e., 100 * [impact / control group mean]). Effect sizes represent the impact as a percentage of the control group standard deviation. Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

The treatment group reported an increase of 0.34 points (effect size of 0.15) on the access to career supports scale and an increase of 0.12 points (effect size of 0.14) on the perceived career progress scale. VIDA's positive impact on career supports could be related to the program's mandatory weekly counseling sessions that were held three times a month in a group setting and once a month individually. Although VIDA did not provide direct job development services, counselors served as a resource for helping participants navigate career-related topics and they connected participants to the colleges' career services departments. The increase in perceived career progress may be associated with the additional credentials earned by the treatment group compared to the control group.

There is little evidence that VIDA affected employment occupations. As discussed in Chapter 1, VIDA's training programs covered a wide variety of occupations, with a majority of participants training in nursing or allied health occupations. There is little evidence that VIDA had an impact on the occupation of program participants with both treatment and control groups' occupational sectors being very similar (Exhibit 3-5). This finding suggests that control group

members pursued similar occupations as treatment group members, even without access to the program, most likely because a large majority of both were already in a program at random assignment.

Among those employed at survey follow-up, the most common sector is healthcare with about half of both the treatment and control group employed in these occupations. However, it is notable that for the full sample, about 75 percent of VIDA participants enrolled in a healthcare program in either nursing or allied health.[37] That about 82 percent of treatment group members were employed when they participated in the survey implies that only about 42 percent of the full sample were employed in healthcare, or roughly 56 percent of those who enrolled in a program in that occupational sector.[38]

Exhibit 3-5: Current Occupational Sector of Employed Study Participants

Occupational Sector	Treatment Group	Control Group	Difference	Standard Error	Relative Difference	*p*-Value
Information technology	1.1	1.7	−0.7	0.9	−38.4	0.480
Business and financial	11.2	8.1	+3.1	2.4	38.1	0.202
Office and administrative support	8.8	10.7	−1.9	2.5	−17.4	0.448
Retail and other sales	2.1	4.4	−2.3	1.5	−53.2	0.129
Food preparation and serving	1.9	2.2	−0.3	1.1	−13.0	0.796
Transportation and material moving	2.8	2.7	+0.1	1.5	3.7	0.947
Protective services	1.6	1.6	0.0	1.1	−0.1	0.999
Personal care and services	0.1	1.9	−1.7 *	0.9	−92.9	0.055
Healthcare	51.4	46.7	+4.7	3.9	10.1	0.229
Other	18.9	19.9	−1.0	3.2	−5.0	0.755
Sample size (employed at follow-up)	323	278				

Source: PACE six-year follow-up survey.
Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. All statistics are conditioned on employment and thus not purely experimental: Hence, they are not regression-adjusted. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

[37] See Exhibit 4-3 in the early VIDA report (Rolston et al. 2017).

[38] Exhibit 3-5 describes treatment group levels by occupational sector conditional on being employed. We also estimated impacts on healthcare unconditionally and the estimate was the same (+4.7) and also non-significant (p=.181).

4. Impacts in Other Domains

This chapter presents VIDA's impact on outcomes in additional domains: financial well-being, other measures of adult well-being, family structure and childbearing, and parenting and child development. The career pathways theory of change as applied to VIDA hypothesizes that positive impacts on postsecondary education and training outcomes would lead to favorable impacts on earnings, which would translate into improvements in other life outcomes. Given the lack of impact on earnings and employment (see Chapter 3), impacts on financial well-being are unlikely. However, VIDA significantly increased the duration of participants' college enrollment (Chapter 2), which might directly (that is not through earnings) affect other measures of well-being, family structure, and parenting and child outcomes.

4.1 Adult Well-being

This section examines results for several measures of financial well-being, including income, financial resilience, level of debt, signs of financial distress, and receipt of means-tested public benefits.

There is some evidence that VIDA reduced financial distress and receipt of means-tested public benefits but had no positive detectable impact on measures of family economic well-being. Compared to the control group, VIDA reduced the financial distress scale for treatment group members by 0.22 points, and reduced receipt of means tested public benefits by nine percentage points (41 percent for the treatment group versus 50 percent for the control group, Exhibit 4-1). Although falling just short of significance (p=0.100), it is possible that VIDA reduced student debt in one's own name by around $1,300. These results might suggest that participants improved their economic situation such that they needed fewer public benefits. However, there is no evidence that VIDA increased household income or improved financial resilience.

Exhibit 4-1: Impact on Measures of Financial Well-Being

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Income						
Household income (annualized $)[a]						
Average	52,295	54,007	−1,711	2,408	−3.2	0.478
Median	46,865	48,000	−1,135	2,343	−2.4	0.628
Personal income (annualized $)[a]						
Average	33,178	33,099	+79	1,749	0.2	0.964
Median	30,206	28,800	+1,406	1,662	4.9	0.398
Financial Resilience						
Able to handle a financial emergency of $400 from savings or checking (%)	36.1	38.9	−2.8	3.5	−7.1	0.784
Able to handle a financial emergency of $200 from savings or checking (%)	54.6	56.2	−1.6	3.6	−2.8	0.669

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Debt						
Debt (average $)						
Student loans (own name)	4,574	5,844	−1,270	772	−21.7	0.100
Student loans (parent's name)	145	123	+22	62	17.9	0.723
Other debt[b]	6,795	6,604	+191	992	2.9	0.848
Total debt[b]	11,450	12,608	−1,158	1,395	−9.2	0.203
Other Indicators of Need						
Without health insurance (%)	39.3	37.8	+1.5	3.7	3.9	0.690
Extent of financial distress (mean for 9-item Y/N scale)	0.91	1.13	−0.22 *	0.14	−19.4	0.060
Sometimes/often not enough to eat (%)	5.0	7.2	−2.2	1.8	−30.2	0.224
Neither owns/rents home or apartment (%)	23.1	21.9	+1.2	3.0	5.5	0.687
Lived with either a friend or relative sometime during last six months for lack of income (%)	7.8	7.3	+0.5	2.0	7.5	0.787
Other Sources of Household Support						
Received means-tested public benefits last month (%)	41.3	49.7	−8.5 **	3.7	−17.0	0.011
Received unemployment insurance or workers compensation last month (%)	2.0	3.1	−1.1	1.2	−36.3	0.339
Received Earned Income Tax Credit last year (%)	54.6	58.7	−4.1	3.8	−6.9	0.282
Received money from non-resident family or friends last month (%)	0.9	2.7	−1.8 *	0.9	−67.5	0.051
Sample size (all survey respondents)	387	345				

Source: PACE six-year follow-up survey.

[a] Estimate for annualized income obtained by multiplying income for the month prior to the survey by 12.

[b] Other debt includes "un-secured" debt (e.g., credit cards) and excludes "secured" debts (e.g., mortgages and car loans).

Note: Rows in **bold** identify secondary outcomes. Hypothesis tests are one-sided for secondary outcomes and two-sided for other (exploratory) outcomes. Statistics under Relative Impact represent the impact as percentage of the control group mean (i.e., 100 * [impact / control group mean]). Effect sizes represent the impact as a percentage of the control group standard deviation. Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

VIDA had no detectable impact on other measures of adult well-being. VIDA did not produce a detectable impact on any measure of self-assessed well-being, including life challenges, stress, social support, or health (Exhibit 4-2).

Exhibit 4-2: Impact on Measures of Adult Well-Being

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error		*p*-Value
Challenges, Stress and Social Support					**Effect Size**	
Index of life challenges (mean score for 1-5 scale across 5 items)	1.65	1.63	+0.02	0.05	0.04	0.629
Index of perceived stress (mean score for 1-5 scale across 4 items)	1.82	1.76	+0.06	0.05	0.09	0.229
Index of social support (mean score for 1-4 scale across 10 items)	3.72	3.76	−0.03	0.03	−0.08	0.314

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error		*p*-Value
Self-Reported Health					Relative Impact (%)	
Percent reporting (%)						
Excellent health	15.73	17.41	−1.68	2.82	−9.6	0.552
Very good health	59.47	56.84	+2.63	3.75	4.6	0.483
Fair health	21.99	22.53	−0.53	3.18	−2.4	0.867
Poor health	2.81	3.23	−0.42	1.24	−13.1	0.733
All respondents	100.0	100.0				
Sample size (all survey respondents)	387	345				

Source: PACE six-year follow-up survey.
Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. Statistics under Relative Impact represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Effect sizes represent the impact as a percentage of the control group standard deviation Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

4.2 Family Structure and Childbearing

This section describes VIDA's impact on family structure and childbearing. Although the career pathways theory of change as applied to VIDA did not hypothesize that the program would affect childbearing and marriage, other research studies have linked postsecondary education to delays in childbearing and marriage, especially for women.[39] Consistent with this research, the three-year report found that among women, VIDA decreased the likelihood of childbearing as well as living with a spouse or partner. This section considers these outcomes after six years, both overall and separately for men and women.

VIDA reduced the likelihood of childbearing and living with children among women, but not for men. Among women, VIDA reduced the likelihood of childbearing by 12 percentage points (32 percent of the treatment group versus 44 percent of the control group) but had no detectable impact for men (Exhibit 4-3). This impact appears to have been driven by women having fewer first children: women in the treatment group were 13 percentage points less likely than women in the control group to be living with children (65 percent of the treatment group compared to 79 percent of the control group), while there was no detectable impact for men (Exhibit 4-3). These impacts compare to 9 percentage point impacts on each of these measures at the end of three years.

VIDA had no detectable impact on the share living with a spouse or partner. In the three-year report, VIDA reduced the share of women living with a spouse or partner by 9 percentage points (Rolston et al. 2021). By six years, there is no longer a detectable impact on the share living with a spouse or partner, either for women or for the full sample.

As described in Rolston et al. (2021), research studies have linked enrollment in postsecondary education to delays in marriage and childbearing, especially for women. Plausibly, once the positive impacts on college enrollment disappeared (after the fifth year), impacts on partnering for women faded, but the childbearing impacts have yet to do so.

[39] See introduction to Chapter 6 of Rolston et al. (2021) for further detail and references.

Exhibit 4-3: Differences in Impact on Family Structure and Childbearing by Sex

Characteristic	Treatment Group	Control Group	Impact (Difference)	Standard Error	*p*-Value for Effect	*p*-Value for Differential Effects	Treatment Group Sample Size	Control Group Sample Size
Living with spouse/partner (%)						0.512		
Male	67.6	67.5	+0.2	6.0	0.979		114	95
Female	53.4	58.1	−4.6	4.2	0.271		272	249
Living with own/partner's child (%)			† †			0.011		
Male	55.3	50.2	+5.1	6.3	0.415		114	94
Female	65.4	78.8	−13.4 ***	3.7	<.001		273	247
Had/partner had child since random assignment or is currently pregnant (%)			†			0.051		
Male	30.9	28.2	+2.7	6.2	0.657		114	94
Female	32.0	43.8	−11.8 ***	4.2	0.005		272	249

Source: PACE six-year follow-up survey.
Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Daggers identify outcomes for which impacts differ by gender in a two-tailed test at the: † 10 percent level; †† 5 percent level; ††† 1 percent level. Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

VIDA had no detectable impact on measures of parenting or child well-being. Among respondents with children, VIDA had no detectable impacts on measures of parenting or child well-being. Large shares of both treatment and control groups believe that their children will graduate college, and both report low levels of school performance-related risks (Exhibit 4-4).

Exhibit 4-4: Impact on Parenting and Child Well-Being

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error		*p*-Value
Parenting					Relative Impact (%)	
Parent believes focal child will graduate college (%)	84.3	90.2	−5.9	5.3	−6.5	0.269
Parent is highly engaged (%)	15.1	16.8	−1.7	4.3	−10.1	0.696
Child Well-being					Effect Size	
Number of school performance-related risks perceived by parent for focal child (mean for list of 0-3 risks)	0.6	0.6	+0.0	0.1	0.05	0.686
Sample size (all survey respondents)	181	147				

Source: PACE six-year follow-up survey.
Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

5. Conclusions

This report has documented the impacts of VIDA approximately six years after random assignment. This final chapter summarizes the main results (Section 5.1), explores possible explanations of them (Section 5.2), and suggests implications for programs and research (Section 5.3).

5.1 Summary of Findings

VIDA had a positive impact of 12 percentage points on the confirmatory outcome in the education domain, *receipt of a college credential after eight or more months of FTE college enrollment by the 24th follow-up quarter.* The program also had a positive 8 percentage point impact on the secondary outcome, *received associate degree or higher by the 24th follow-up quarter.* Cumulatively over six years, VIDA had positive impacts on three related secondary enrollment measures—*any enrollment, full-time enrollment, and FTE enrollment*. Consistent with these enrollment impacts, VIDA had a positive impact of 11 percentage points on enrolling in college for four or more months after earning a college credential. However, although this later enrollment resulted in about one-fifth of the treatment group earning a credential after Year 3 (by which time almost all had exited VIDA), this impact on enrollment did not translate into more credentials after three years than for the control group. Thus, the positive six (and seven) year impact of 12 percentage points on receiving a college credential after eight or more months of FTE enrollment was the same as the impact at the end of three years.[40]

VIDA's positive impacts on college credentials did not translate into positive impacts on earnings, including the confirmatory outcome in the employment domain, *average quarterly earnings in quarters 23 and 24*. VIDA also had no detectable impact on secondary measures of annual earnings in Years 4 through 7. In addition, VIDA had no positive impact on a variety of measures of job quality, including working full time, receiving five fringe benefits, or other measures of job quality. VIDA did positively affect two measures of perceived career progress.

Consistent with the lack of impacts in the employment domain, VIDA had few effects in the financial well-being domain. Treatment group members reported less financial distress and receipt of means-tested benefits than control group members, perhaps related to a possible decrease in student loan debt. At the end of six years, similar to three-year results, VIDA treatment group women were less likely—by 12 percentage points—to have borne a child than their control group counterparts.

The overall findings are generally similar to those in the three-year impact report. One exception is the impact on college enrollment: in the three-year report, the program continued to have

[40] It is possible that, although the positive impacts on enrollment in Years 4 and 5 did not lead to larger impacts on credentials, they staved off control group catch-up. By contrast, for the City University of New York Accelerated Study in Associate Programs, the magnitude of impact on receipt of an associate degree declined from the end of Year 3 to the end of Year 6 (Weiss et al. 2019).

positive impacts on college enrollment in Years 1 through 4. In this report, we show that VIDA also had an impact on enrollment in Year 5, but not in Year 6. In addition, while this report focuses on six-year results, the overall pattern of impacts on administrative education and employment outcomes continued through Year 7.

5.2 Potential Explanations

In the context of experimental research on interventions intended to increase college completion, VIDA's positive impacts on longer-term educational credentials that are expected to yield economic gains are large. However, these credential impacts did not translate into detectable positive earnings impacts. This section explores possible explanations of this pattern of impacts, which was not anticipated by the PACE theory of change as applied to VIDA.

This section attempts to understand this pattern of impacts, primarily by comparing VIDA's results to those of a closely related program, Project QUEST (hereafter "QUEST"). QUEST, which is three years older than VIDA, provided the program model for VIDA and the two operate in very similar ways (Rolston et al. 2021). QUEST has also been the subject of a randomized control trial, initially designed with six years of follow-up in Roder and Elliott (2018), though follow-up was later extended to eleven years.[41] By the end of the sixth year, QUEST had a positive 11 percentage point impact on credentials requiring a year or more of training, an impact very similar to VIDA's 12 percentage point impact.[42] However, unlike VIDA, QUEST had a statistically significant positive $4,691 impact on annual earnings, even though its sample is less than half as large as VIDA's. Furthermore, QUEST's impacts on earnings were positive in Year 11.

The VIDA and QUEST evaluation designs differ in ways that are important to interpreting comparisons of their findings. The goal of VIDA's evaluation design was to capture the effects of the full program, including the full population it served and the full range of occupational programs it supported. By contrast, the goal of the QUEST evaluation was narrower. Its goal was to capture the effects of the QUEST program on a subset of its population—applicants not currently enrolled in college who were interested in a career in healthcare. To accomplish this goal, the QUEST evaluation randomly assigned only these individuals, and not applicants who were either already enrolled in any kind of college program, healthcare or otherwise, or individuals who were not in college but interested in pursuing non-healthcare occupations.[43] At

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41 In addition to the six-year report, Roder and Elliott (2020) provides nine years of follow-up relying on NSC data to estimate educational impacts, Roder and Elliott (2019) uses nine years of Texas Unemployment Insurance (UI) records to estimate earnings impacts, and Roder and Elliott (2021) use both NSC and Texas UI records to estimate 11-year education and earnings impacts.

42 QUEST also supported training in a seven-month medical coder certificate which is not captured in this estimate. QUEST overall had an 18 percentage point impact on all types of credentials including shorter-term and non-college credentials.

43 The limitation to training in healthcare reflects the fact that the QUEST evaluation was originally part of a multi-program random assignment evaluation (Maguire et al. 2010) that focused on programs that supported training in specific employment sectors (Roder and Elliott 2018).

the time of the QUEST evaluation, like VIDA, the program did serve these excluded individuals, but the evaluation does not capture the program's effects on them. Thus, in comparing the findings of the VIDA and QUEST evaluations, the entire VIDA program is being compared to a subset of the QUEST program. However, as a shorthand we refer to the QUEST results as pertaining to the QUEST program.

One plausible explanation of the divergent VIDA and QUEST earnings impacts is that while their overall credential impacts are similar, the impacts on specific types of credentials differ between the two programs. This explanation is plausible, in part, because of the evaluation design feature described in the prior paragraph, namely that the QUEST evaluation focused on individuals interested in pursuing healthcare credentials.

VIDA increased receipt of both healthcare and non-healthcare credentials but any positive impacts on receipt of associate degrees in nursing or Licensed Vocational Nursing certificates are small and individually non-significant. **In contrast to VIDA, Project QUEST produced large impacts on receipt of LVN certificates and employment in healthcare.** VIDA provided support to participants for training in over 30 occupations, so analyzing impacts by particular occupation is not generally feasible However, VIDA's occupations cluster into four groups, each of which represents approximately one-quarter of occupational areas in which VIDA participants trained.[44] Two are specific occupations—Licensed Vocational Nurse (LVN) and Registered Nurse (RN), the latter of which requires earning at least an Associate Degree in Nursing (ADN)—and two are general categories—allied health and non-health.[45]

Exhibit 5-1 shows VIDA's impact on different types of credentials.[46] At the summary level, VIDA had positive impacts on both healthcare and non-healthcare credentials. VIDA did not have a detectable impact on receipt of any of the three categories of healthcare credentials, although the study is underpowered to detect impacts at this level of credential. Most notably, the impact on earning either an LVN or ADN is only about 4 percentage points and is not statistically different from zero (just slightly above p=0.10).

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[44] See Exhibit 4-3 of the Implementation and Early Impacts Report. Some individuals trained in more than one occupation, so the four categories each represent *at least* one quarter of the areas.

[45] Impacts on the two nursing credentials can be estimated separately because both credentials can be readily identified in the data. Because allied health and non-health credentials are spread across many different occupations, there are relatively few of each, so we estimate impacts on these credentials for each of the two categories in their entirety. In addition, we restrict credentials to those earned after at least 8 months of FTE enrollment, to align with the confirmatory education outcome.

[46] Because some individuals earned more than one health credential, the sum of the treatment and control group means exceeds those in the summary category.

Exhibit 5-1: VIDA Impact on Receipt of Various Types of Credentials

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Earned healthcare credential following 8+ months of FTE enrollment	38.1	30.2	+7.9***	2.9	26.1	0.007
Earned LVN or ADN credential	27.7	23.3	+4.4	2.7	18.7	0.103
Earned ADN credential	15.7	12.8	+2.9	2.6	22.5	0.270
Earned LVN credential	17.3	14.4	+3.0	2.3	20.7	0.205
Earned allied health credential	14.3	12.1	+2.2	2.2	18.2	0.320
Earned non-healthcare credential following 8+ months of FTE enrollment	23.2	17.9	+5.3 **	2.7	29.6	0.047
Sample size (all participants)	478	480				

Source: National Student Clearinghouse.
Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

VIDA's lack of impact on high-value healthcare credentials appears to be a key driver of the difference in earnings impacts between VIDA and QUEST.[47] Exhibit 5-2 shows the six-year impacts of QUEST on receipt of an LVN credential and employment in healthcare. Training rates among those in the treatment group are similar: 60 percent of QUEST participants sought an LVN credential, while 50 percent of VIDA participants pursued either an LVN or ADN.[48] QUEST substantially increased LVN receipt by 21 percentage points (36 percent of the treatment group versus 15 percent of the control group).[49] The 21 percentage point impact for QUEST compared to the four percentage point estimate for VIDA is a plausible driver of the divergent earnings impacts between the two programs.

QUEST's large impact on receipt of LVN certificates appears to have been achieved in part by shifting the occupation in which participants pursued training. The impact on receipt of an LVN certificate of 21 percentage points is much larger than the overall impact on receipt of any credential (LVN or otherwise) of 11 percentage points. Further, this shift in training is

47 Differences between VIDA's and QUEST's impacts described in this section are statistically significant at .10 or better.

48 An additional 7 percent of QUEST participants sought an ADN credential. We compare the QUEST impact on earning an LVN credential alone to the VIDA impact earning an LVN or ADN credential, because this comparison represents more similar proportions of the credentials the two studies' treatment groups sought.

49 The QUEST impact on earning an LVN certificate is based on a six-year survey. The survey captured more certificates for both treatment and control group members than the NSC. A descriptive, non-regression comparison using NSC data favored the treatment group by 19 percentage points (August 24, 2021 email from Anne Roder).

accompanied by an increase in employment in healthcare by 16 percentage points (Exhibit 5-2). In contrast, VIDA had no detectable impact on healthcare employment.[50]

Exhibit 5-2: QUEST Impact on Receipt of LVN Credential and Healthcare Employment

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	*p*-Value
Earned LVN credential	35.8	14.7	+21.1***	4.5	0.000
Employed in a healthcare occupation in year six	47.4	31.6	+15.8***	5.2	0.002
Sample size (all participants)	175	168			

Source: QUEST six-year survey for LVN credential (unpublished results from Anne Roder, Economic Mobility Corporation, in 2021) and Roder and Elliot (2018) for healthcare occupation results.

The contrast between the VIDA and QUEST earnings results are consistent with non-experimental research, which has found that the economic return to college credentials varies substantially by occupation. The findings of Stevens et al. (2019) are the most credible among these studies.[51] They find that healthcare credentials, especially degrees and longer-term certificates of the kind that VIDA and QUEST supported, on average provide larger increases in earnings than non-healthcare credentials. For example, they estimate that associate degrees in healthcare lead to doubling of earnings and shorter healthcare certificates of one to two years lead to 50 percent increases. Almost all other occupational areas increase earnings by about 15 to 23 percent, and the length of time necessary to earn the credential has a weaker relationship to its economic value in these areas and is not always positive.[52]

VIDA's credential impacts were smaller for participants already enrolled at baseline compared to those not already enrolled. Why was QUEST able to successfully shift participants towards healthcare training while VIDA did not? One plausible explanation is the difference in enrollment status at random assignment. As described above, the QUEST evaluation included only individuals who were not currently enrolled in college. By contrast, VIDA recruited about seventy percent of its participants from students already enrolled in college, and VIDA's entire pool of eligible applicants were enrolled in its evaluation. It seems plausible that individuals who were already established in school were less likely to change their occupational area—in particular, to high return LVN or ADN—after joining VIDA. In addition, the already-enrolled participants may have been less in need of VIDA supports (i.e., more of them would have earned the credential even without VIDA), leading to smaller impacts. To explore

[50] Exhibit 3-5 describes treatment group levels by occupational sector conditional on being employed. We also estimated impacts on healthcare unconditionally and the estimate was non-significant and identical to the conditional estimate.

[51] The findings are particularly credible because the study uses substantial prior earnings as the key control variable for identifying the return to earnings of credentials. In addition, the study is focused on occupational credentials, is able to summarize findings systematically over different occupational areas, and has a large sample size.

[52] Other non-experimental studies are broadly consistent with these findings, e.g., Dadgar and Trimble 2015; Belfield and Bailey 2017.

these possibilities, we estimated impacts on credentials and earnings by college enrollment status at random assignment.

VIDA had a 23 percentage point impact on receipt of a college credential after 8+ FTE months of enrollment for those not enrolled at random assignment, almost four times as large as the six percentage point impact for those who were already enrolled (Exhibit 5-3). Control group members who were already enrolled at baseline were much more successful than those who were not: about two-thirds of those already enrolled earned a credential without VIDA's help, while less than a third of those not enrolled earned a credential. That is, of the 73 percent of already enrolled VIDA treatment group members who earned a credential requiring a year or more of school, 92 percent would have earned the credential without the expenditure of VIDA's human and financial resources. By contrast, only 60 percent of treatment group members who were not enrolled at program entry would have earned their credential without VIDA's assistance. This explanation of a lack of earnings impacts would be stronger if there was also a differential impact on earnings, however no such differential is detected.[53] However, the results in Exhibit 5-3 suggest that VIDA's substantial enrollment of students already in college, two-thirds of whom would have earned their credentials without VIDA's help, reduced the program's overall impact on credentials and possibly on earnings.[54]

Exhibit 5-3: Impact on Received College Credential Preceded by 8+ FTE Months of Enrollment by Q24 by College Enrollment Status at Random Assignment

Enrollment	Treatment Group	Control Group	Impact (Difference)	Standard Error	*p*-Value for Effect	*p*-Value for Differential Effects	Treatment Group Sample Size	Control Group Sample Size
Received College Credential Preceded by 8+ FTE Months of Enrollment by Q24			† † †			0.005		
Enrolled in college at baseline	72.8	66.8	+6.0 *	3.5	0.083		339	313
Not Enrolled in college at baseline	54.6	31.1	+23.4 ***	5.2	<.001		139	167
Average Quarterly Earnings in Year 6						0.509		
Enrolled in college at baseline	$9,350	$9,513	−$163	$534	0.760		320	303
Not Enrolled in college at baseline	$6,697	$6,313	+$383	$633	0.545		156	176

Source: National Student Clearinghouse and National Directory of New Hires.
All hypothesis tests and associated p-values in this table are based on two-sided tests. Daggers identify outcomes for which impacts differ by subgroup in a two-tailed test at the: † 10 percent level; †† 5 percent level; ††† 1 percent level. Asterisks indicate whether each estimated impact is statistically significant (i.e., different from zero) at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

[53] One important limitation is a lack of statistical power—the subsample of non-enrolled participants is small, and impacts on credentials are easier to detect than impacts on earnings.

[54] We also examined other differences between VIDA's and QUEST's implementation of the program model that might explain the differences in earnings impacts, including QUEST's stronger emphasis on job development, demographic differences in their study populations and possible differences in their local economies. The evidence we were able to develop did not support these explanations.

We also examined whether differences between VIDA's and QUEST's implementation of the program model might explain the differences in earnings impacts, including QUEST's stronger emphasis on job development, demographic differences in their study populations, and possible differences in their local economies. The evidence we were able to develop did not support these explanations. For example, because the main driver of QUEST's impacts appears to be its large impact on LVN certificates, we examined LVN graduates in VIDA more closely. With respect to job development, we observed that over 70 percent of VIDA participants who earned an LVN certificate subsequently enrolled in additional college education. This might signal that participants were not successfully gaining employment as an LVN, either because of weak employment services or a less favorable labor market for LVN employment than existed for QUEST LVN graduates. However, we found that 80 percent of VIDA LVN certificate earners who had returned to school and not yet earned an ADN were working as LVNs. This suggests that their return to college appears to represent a desire to advance up the nursing ladder, rather than lack of success in finding employment with their current credential. Furthermore, average annual earnings of VIDA treatment group members in Year 6, including the 20 percent who were unemployed, were over $32,000 (compared to $28,000 for their QUEST counterparts in that year). These data suggest that the lack of earnings impacts for VIDA were not due to the lack of success of its participants, but rather to the comparable success of control group members.[55]

5.3 Implications

VIDA's lack of detectable impacts on earnings combined with substantial impacts on credentials runs contrary to expectations. This section draws implications for program operators and researchers from the possible explanations.

The success of postsecondary training programs in improving earnings outcomes depends on success in improving credential outcomes in occupations and sectors that have high economic returns. At one level this is trivial, especially for programs that adopt a local labor market strategy like VIDA. However, Section 5.2 illustrates that a program can have substantial credential impacts, but the positive impacts are not for credentials that have high value. VIDA's minimal impact on healthcare credentials with higher earnings potential—in particular LVNs and ADNs—is a plausible explanation for its lack of earnings impact.

As described above, the QUEST evaluation's research sample only included participants who were interested in healthcare jobs, whereas only about three-quarters of the VIDA treatment group were seeking credentials in healthcare. However, QUEST succeeded in increasing the percentage of treatment group members in healthcare jobs by 16 percentage points over the control group, while VIDA had no detectable positive impact. Plausibly, this was in part due to the QUEST evaluation selecting only individuals who were not enrolled in college at random assignment and who would be more flexible in their choice of fields than individuals who were

[55] The QUEST evaluation found that some demographic subgroups had lower earnings impacts than others, for example, younger versus older participants. We examined subgroup impacts for which the QUEST evaluation suggested lower earnings impacts and the VIDA evaluation had comparable data. The QUEST subgroup findings were not replicated in the VIDA evaluation, making this explanation unlikely.

already enrolled in programs. This gave the program the opportunity not only to increase receipt of credentials by individuals within the sector, but also to move individuals from a less valuable to more valuable sector.

In establishing program eligibility criteria, program operators should consider both who might succeed in the program, as well as who might succeed without it. In establishing eligibility criteria and selecting applicants, program operators are typically attuned to excluding individuals who have little chance of completing it even with the program's services. VIDA's impact on credentials for non-enrolled participants was four times as large as for already enrolled participants (23 versus 6 percentage points), but in the absence of the program, only about one-third of the non-enrolled would have earned a credential versus two-thirds of the already-enrolled. This suggests that the program would have had much larger impacts on credentials, and perhaps earnings, had it enrolled a smaller proportion of individuals who were likely to succeed on their own. More generally, program operators may be reducing their program's impact if they select too many applicants who are likely to succeed without the program, as did VIDA with respect to those already enrolled in college. Determining for whom the program will have larger impacts is almost certain to be challenging and imprecise, but the effort to consider the likely outcomes of non-participants may help programs achieve larger impacts.

Researchers who assess the effectiveness of college completion programs should estimate impacts on earnings and on more specific types of credentials. The VIDA results show that improvements in college completion, even with respect to longer-term credentials, do not necessarily lead to increases in earnings, particularly if the impacts are not for high-value credentials. This suggests the value of measuring the earnings of study participants directly in evaluations of college completion programs as well as estimating impacts on credentials at a finer level than just length of training or the level of the credential (i.e., certificate or degree). The VIDA results also suggest that the typical size of studies is likely underpowered to detect earnings impacts, in the absence of very large impacts on credentials with high economic value. Large, possibly multi-site, studies likely are necessary.[56]

Replication and multi-site studies are vital to ensure the application of the findings to other settings is warranted. QUEST had positive impacts on credentials and earnings; VIDA had positive impacts on credentials, but not on earnings. Thus, the PACE evaluation of VIDA did not replicate the QUEST findings. It appears that the failure to replicate the QUEST findings was in part due to the different designs of the two evaluations. QUEST's impacts on its full population of participants, including those already enrolled in college or pursuing non-health credentials, may have been different from the impacts estimated for its study sample of those not enrolled at baseline. The VIDA results should serve as impetus for further evaluations of the QUEST model with larger samples in multiple sites and design features that could address the different findings of the two current studies. More generally, without successful replication, a program model should not be deemed generically effective. Replication, where possible in multiple sites, is vital to have confidence in the broader applicability of a study's findings.

[56] See also Weiss et al. (2015).

A planned Career Pathways Extended Outcomes Impact Study would assess even longer term (through ten years after random assignment) credential and earnings impacts.[57] However, given the impacts found in this report, earnings impacts in future years are unlikely to emerge.

[57] OPRE is planning a 10-year follow-up study based on administrative data (NDNH and NSC). As of this writing, the study is not yet funded.

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Supplemental Exhibits

Exhibit S-1: Impact on Various Education and Training Outcomes as of the Six-Year Survey Interview

Outcome	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Ever received credential after random assignment from (%):						
A college						
Associate degree or higher	49.2	41.7	+7.5 **	3.5	17.9	0.033
Less than associate degree	33.1	26.9	+6.2 *	3.5	23.1	0.073
Any college credential	69.6	60.2	+9.4 ***	3.4	15.6	0.006
Another education/training provider	12.2	15.7	−3.5	2.6	−22.4	0.173
A college or other training provider	72.6	65.3	+7.3 **	3.3	11.2	0.029
A licensing/certification body	53.9	54.0	−0.1	3.9	−0.1	0.986
Any of the above sources	80.4	77.6	+2.8	3.1	3.6	0.356
Ever enrolled in education/training in follow-up years 4-6 (%)	37.4	36.4	+1.0	3.9	2.9	0.792
At six-year survey, enrolled in education/training at (%):						
A college	17.0	9.8	+7.2 ***	2.5	73.7	0.004
Another education/training institution	2.1	2.7	−0.7	1.2	−24.4	0.575
A school that is not a college	0.2	0.9	−0.7	0.5	−78.3	0.167
A community organization	0.0	0.0	0.0	0.0		
An employer	0.3	0.0	+0.3	0.3		0.315
Other	1.6	1.9	−0.2	1.1	−13.3	0.815
Any education/training program	19.1	12.5	+6.5 **	2.7	52.2	0.015
Full time	10.8	6.4	+4.5 **	2.1	70.7	0.034
Part time	8.2	6.2	+2.0	1.9	33.1	0.277
Sample size (all survey respondents)	387	345				

Source: PACE six-year follow-up survey.
Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

Exhibit S-2: Impact on Percent Enrolled in College by Follow-up Quarter

Any College Enrollment (%) during Follow-up Quarter	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Q(-2)	60.9	57.7	+3.2	2.8	5.6	0.257
Q(-1)	68.8	65.2	+3.6	2.8	5.5	0.203
Q0	82.9	81.7	+1.2	2.3	1.5	0.609
Q1	87.5	84.0	+3.6 *	2.1	4.2	0.084
Q2	83.0	76.2	+6.7 ***	2.4	8.8	0.006
Q3	79.8	70.6	+9.2 ***	2.7	13.1	<.001
Q4	73.8	63.5	+10.3 ***	2.9	16.2	<.001
Q5	65.4	53.3	+12.0 ***	3.1	22.6	<.001
Q6	56.8	45.8	+11.0 ***	3.2	24.0	<.001
Q7	50.6	41.2	+9.4 ***	3.2	22.7	0.003
Q8	42.6	37.5	+5.1	3.2	13.7	0.107
Q9	37.1	33.8	+3.3	3.1	9.8	0.289
Q10	31.6	27.3	+4.3	3.0	15.7	0.151
Q11	28.7	23.8	+5.0 *	2.9	21.0	0.086
Q12	29.1	22.1	+7.0 **	2.9	31.6	0.015
Q13	26.2	19.8	+6.4 **	2.8	32.2	0.022
Q14	22.8	17.3	+5.5 **	2.6	32.0	0.037
Q15	23.5	16.2	+7.3 ***	2.6	44.9	0.005
Q16	20.9	15.4	+5.5 **	2.5	35.8	0.028
Q17	19.1	15.4	+3.7	2.5	23.8	0.145
Q18	20.2	14.8	+5.5 **	2.5	36.9	0.029
Q19	19.3	14.8	+4.5 *	2.5	30.4	0.068
Q20	17.7	15.0	+2.7	2.4	17.8	0.267
Q21	18.6	14.6	+4.1 *	2.4	27.8	0.093
Q22	16.4	14.0	+2.4	2.3	17.2	0.304
Q23	15.7	12.9	+2.8	2.3	21.5	0.219
Q24	14.6	12.9	+1.6	2.2	12.7	0.463
Q25	14.9	13.3	+1.6	2.3	11.7	0.495
Q26	15.3	13.1	+2.1	2.3	16.3	0.353
Q27	15.2	12.7	+2.5	2.3	19.5	0.281
Sample size	478	480				

Source: National Student Clearinghouse.

Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]). Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

Exhibit S-3: Impact on Employment with Quarterly Earnings of at least $6,825 by Follow-up Quarter

Employed with Earnings of at Least $6,825 (%) in Follow-up Quarter[a]	Treatment Group	Control Group	Impact (Difference)	Standard Error	Relative Impact	*p*-Value
Q(-2)	5.3	6.5	−1.2	1.4	−18.6	0.377
Q(-1)	4.1	5.0	−0.9	1.3	−18.1	0.485
Q0	2.6	2.7	−0.1	1.0	−4.7	0.900
Q1	2.5	2.9	−0.4	1.0	−13.9	0.695
Q2	3.8	5.2	−1.4	1.3	−27.2	0.278
Q3	5.5	7.7	−2.2	1.6	−28.8	0.163
Q4	8.3	8.8	−0.5	1.8	−5.5	0.787
Q5	11.2	13.2	−2.0	2.1	−14.9	0.358
Q6	15.0	17.7	−2.7	2.4	−15.2	0.258
Q7	18.5	20.7	−2.2	2.5	−10.7	0.385
Q8	24.3	25.5	−1.1	2.7	−4.5	0.677
Q9	29.2	30.9	−1.7	2.9	−5.4	0.559
Q10	32.4	34.9	−2.4	2.9	−7.0	0.408
Q11	35.6	37.0	−1.3	3.0	−3.6	0.658
Q12	38.9	40.1	−1.2	3.0	−3.0	0.692
Q13	40.0	43.2	−3.3	3.0	−7.5	0.280
Q14	40.2	44.1	−3.9	3.0	−8.8	0.197
Q15	41.6	43.0	−1.4	3.0	−3.3	0.643
Q16	47.8	45.9	+1.8	3.0	4.0	0.544
Q17	51.9	47.0	+4.9	3.1	10.4	0.109
Q18	48.8	47.4	+1.4	3.0	2.9	0.655
Q19	50.4	47.8	+2.6	3.0	5.4	0.400
Q20	49.8	50.1	−0.3	3.1	−0.6	0.923
Q21	51.7	49.9	+1.9	3.1	3.7	0.546
Q22	52.0	50.1	+1.9	3.0	3.8	0.527
Q23	56.0	51.1	+4.9	3.1	9.5	0.113
Q24	57.0	52.6	+4.4	3.0	8.4	0.145
Q25	55.4	54.5	+0.9	3.0	1.7	0.761
Q26	56.8	56.4	+0.4	3.0	0.7	0.889
Q27	55.9	54.6	+1.3	3.1	2.3	0.683
Sample size	476	479				

Source: National Directory of New Hires.

Note: All hypothesis tests and associated p-values in this table are based on two-sided tests. Statistics in the Relative Impact column represent the impact as a percentage of the control group mean (i.e., 100 * [impact / control group mean]).

Asterisks indicate statistical significance at the: * 10 percent level, ** 5 percent level, *** 1 percent level.

Data for Q27 are missing for about 3 percent of the sample.

Exhibit S-4: Earnings Impacts Preceding and During COVID-19 Pandemic

Calendar Quarter	Estimated Impact	Standard Error	*p*-Value
2018 Quarter 1	$238	$446	0.593
2018 Quarter 2	$489	$447	0.275
2018 Quarter 3	$117	$439	0.790
2018 Quarter 4	$144	$466	0.757
2019 Quarter 1	−$124	$482	0.796
2019 Quarter 2	−$90	$507	0.859
2019 Quarter 3	−$401	$485	0.410
2019 Quarter 4	−$481	$513	0.348
2020 Quarter 1	−$254	$513	0.620
March 2020: World Health Organization declares COVID-19 a pandemic and the President of the United States declares COVID-19 a National Emergency			
2020 Quarter 2	$83	$501	0.869
2020 Quarter 3	$159	$658	0.810
2020 Quarter 4	$270	$793	0.734

Source: National Directory of New Hires.

Sample size: 955.

Note: All hypothesis tests and associated *p*-values in this table are based on two-sided tests.