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# Are Self-Employment Training Programs Effective?

## Evidence from Project GATE

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### Abstract

In 2002, the U.S. Department of Labor and the Small Business Administration implemented Project GATE, an experimental demonstration program designed to provide free self-employment assistance to individuals interested in starting their own business. This paper uses data from Project GATE to examine the efficacy of public self-employment training programs in the modern U.S. economy. Our analyses show that GATE led to significant improvements in the post-training outcomes of treatment group participants who were unemployed at the time of application. Particularly, GATE had a significant positive impact on new business starts and sustainability for unemployed participants five years after random assignment. For those who were unemployed at random assignment, GATE also led to higher employment likelihood and higher total earnings five years after random assignment. GATE had no impact, however, for participants who were employed, self-employed, or out of the labor force at the time of application.

Keywords: self-employment, small business, unemployment, workforce development, SEA, Project GATE.

JEL Classifications: H4, J6, L2.

# Are Self-Employment Training Programs Effective? Evidence from Project GATE

## Introduction

Self-employment has historically been an attractive option for American workers. At the start of the 21<sup>st</sup> century, about 12% of employed workers in the U.S. were self-employed.<sup>1</sup> In 2004, the median income of self-employed workers was 35% higher than the median income of salary workers, while the family worth of the self-employed was five times larger than that of salary workers (Bucks et al., 2006). Besides the potential individual gains, self-employment also contributes at the macroeconomic level. According to the U.S. Census Bureau, new businesses created an average of 3.0 jobs in 2005, compared to an average of 1.9 jobs for existing businesses. So, the successful pursuit of self-employment is important since it provides an attractive alternative to salary employment (Bates, 1997; Kwansa, 1998; Glocker and Steiner, 2007) and also contributes to the overall growth of the U.S. economy (Bregger, 1996; Reynolds and White, 1997; Acs, 1999; Minniti and Bygrave, 2004; Davies et al., 2008).

Aspiring business owners may be willing to work hard and invest a substantial portion of their time in starting their own business, but face numerous obstacles in their efforts to successfully pursue self-employment. Some of the most important obstacles may be lack of business background and expertise (Hout and Rosen, 2000; Dunn and Holtz-Eakin, 2000; Fairlie and Robb, 2007) and lack of access to credit (Blanchflower et al., 2003; Cavalluzzo and Wolken, 2005). These problems may be responsible for the high failure rate of new businesses within the first two years of operation (Dennis, 1999; Lowrey, 2009).

Because of the importance of small businesses in the U.S. economy, supporting self-employment has received a lot of attention from policymakers in the past 20 years. At the

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<sup>1</sup> Source: American Community Survey, 2000-2008.

beginning of the 1990s, the U.S. Department of Labor (DOL) funded two self-employment demonstration programs; the Washington Self-Employment and Enterprise Development and the Massachusetts Self-Employment Demonstration. The goal of those programs was to explore if self-employment training programs were a viable policy tool for promoting the reemployment of unemployed workers through the creation of small businesses. Both programs were found to be effective in assisting participants start their own business (Benus et al., 1995). With the passage of the North America Free Trade Agreement Implementation Act in 1993, Congress authorized states to establish self-employment assistance (SEA) programs targeting unemployed workers for a 5-year period. This led to the implementation of a number of SEA programs, including those in Maine, New Jersey, and New York (Kosanovich et al., 2002). The early SEA programs were considered generally effective, prompting Congress to permanently authorize such programs for the unemployed (Vroman, 1997).

In 2002, DOL teamed with the Small Business Administration (SBA) to create an experimental self-employment demonstration program, called Project GATE (Growing America Through Entrepreneurship). The goal of Project GATE, implemented between 2003 and 2005 in Pennsylvania, Minnesota, and Maine, was to evaluate the impact of offering free self-employment training services to all individuals interested in starting or expanding their own business. Project GATE was specifically designed as an experimental program so that its effectiveness could be adequately determined. All applicants were randomly assigned to the treatment or to the control group and their post-training outcomes were documented in three follow-up surveys, which were conducted 6, 18, and 60 months after random assignment (Benus et al., 2008, Benus et al., 2009).

Project GATE's design provides a unique opportunity to examine the effectiveness of self-employment programs in the modern U.S. economy. In addition, GATE differs from the early 1990s demonstration programs and the SEA programs (which specifically targeted the unemployed) in that it served all interested applicants, regardless of their employment status. Previous research suggests that the unemployed may be more motivated than their peers to pursue self-employment since they view self-employment as an alternative to salary employment or as a way to avoid labor market discrimination (Sowell, 1981; Meager, 1992; Bates 1997; Rissman, 2003; Glocker and Steiner, 2007). It is possible, therefore, that self-employment programs may be more effective for the unemployed than for other individuals. Project GATE provides an opportunity to examine if self-employment training programs have a heterogeneous treatment effect, by employment status.

This paper uses Project GATE program data to answer questions relating to the effectiveness of self-employment training programs in the modern U.S. economy. Do self-employment training programs have a significant impact on the post-training outcomes of participants? Are such programs more effective for the unemployed? What should be the focus of future self-employment training programs?

The paper is organized as follows. Section 1 provides an overview of Project GATE, including a description of the baseline characteristics of applicants. Section 2 presents the post-training outcomes of GATE participants in the treatment and in the control group based on their responses in the three follow-up surveys, conducted 6, 18, and 60 months after random assignment. These outcomes include: likelihood of starting a new business; likelihood of sustaining a new business; self-employment likelihood; employment likelihood; and earnings. A

comparison of treatment-control outcome means shows that treatment group participants had significantly better post-training outcomes than their control group peers.

Section 3 uses regression models to estimate the average GATE treatment effect controlling for treatment-control group differences in observed characteristics that may have occurred by chance. In addition, we examine whether GATE had a heterogeneous impact on participants, by employment status. Our analyses show that GATE led to substantial improvements in the post-training outcomes of participants who were unemployed at the time of application, but had no impact on other participants. Finally, we provide a summary of our findings and discuss their policy implications.

## **1. Project GATE Overview**

In their efforts to promote self-employment and create jobs during a period of relatively slow economic activity, DOL partnered with SBA in 2002 to sponsor a self-employment training program, called Project GATE (Growing America Through Entrepreneurship). The goal of Project GATE was to assist individuals interested in starting their own business by providing them an array of free self-employment services. Project GATE was implemented between 2003 and 2005 in Pennsylvania, Minnesota, and Maine. All interested individuals could enroll in the program by applying in one of the seven designated DOL One-Stop Career Centers (one site in each Philadelphia, Pittsburgh, and Minneapolis/St. Paul, two sites in rural Minnesota, and two sites in rural Maine).

To participate in Project GATE, all applicants were required to complete an application form which requested information on their demographic background, employment status, and self-employment experience. Applicants were also asked to provide information on their personal

circumstances, particularly regarding their finances (e.g., credit history, household income). Upon application, applicants were randomly assigned to the treatment or to the control group. Those in the treatment group were offered an initial assessment of their individual business needs and were then referred to a wide array of self-employment services. These included classes, workshops, and seminars that aimed to assist them in understanding all the different aspects of starting and operating a business. Moreover, individual business counseling was offered where participants had the opportunity to discuss their business idea, receive help in producing or improving their business plan, and identify ways to address their individual business needs. In addition, treatment group participants were offered assistance in securing financing for their business, either through the SBA MicroLoan program or through other sources. These services were provided by the SBA's Small Business Development Centers and by nonprofit community-based organizations. In contrast, those in the control group were offered none of the available services under Project GATE.

To document the post-training outcomes of Project GATE applicants, there were three follow-up surveys, Wave 1, Wave 2, and Wave 3, conducted about 6, 18, and 60 months after random assignment, respectively. As Table 1 shows, there were a total of 4,198 GATE applicants, of whom 2,095 (or 50%) were assigned in the treatment group and 2,093 (or 50%) in the control group. Table 1 also shows that 3,449 (or 82%) of applicants responded to the Wave 1 survey (6 months post random assignment), of whom 88% responded to the Wave 2 survey (18 months post random assignment). In turn, 2,450 (or 81%) of Wave 2 respondents also responded to the Wave 3 survey (60 months post random assignment) – in all, 72% of all applicants

responded to the Wave 1 and Wave 2 surveys and 58% responded to all three surveys.<sup>2</sup> The high response rates in the follow-up surveys resulted in a nearly equal representation of treatment and control group members among respondents.

Table 2 presents the baseline characteristics of four groups of GATE applicants: all applicants, Wave 1, Wave 2, and Wave 3 respondents. Most GATE applicants were in the Minneapolis/St. Paul site (39%), followed by Philadelphia (28%). Pittsburgh accounted for 14% of all applicants, as did Maine, while only 5% of applicants were in rural Minnesota. Notably, there were only slightly more male than female applicants and, while the majority of applicants were white, there was also great interest in GATE participation by blacks. About two thirds of all applicants were between the ages of 35-55, while only a quarter had a high school diploma or less. The high survey response rates resulted in mostly similar proportions of applicants by GATE site and by baseline characteristic in the three follow-up surveys.

Table 3 shows about half the applicants were unemployed at the time of application, that is, they did not have a salary job and reported they were actively looking for a job at that time.<sup>3</sup> The remaining applicants were employed in a salary job (28%), were self-employed (13%), or were not in the labor force (9%).<sup>4</sup> As Table 3 shows, 37% of applicants reported having prior self-employment experience (*Ever Self-Employed*), while 23% already had a completed business plan at the time of application (*Business Plan*). Nearly half the GATE applicants had a poor credit history score either because they lacked credit history or because they had a bad credit history record (*Bad/No Credit History*). About 45% of applicants had relatives supporting their family

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<sup>2</sup> The data also report weights that can be used to adjust for differences in survey non-response. These weights were constructed using variation in the observable characteristics between respondents and non-respondents – for more details, see Benus et al. (2009).

<sup>3</sup> Note that 272 (or 13%) of unemployed GATE applicants reported owning a business that was inactive at the time of application.

<sup>4</sup> There were 200 (or 5%) of all GATE applicants who were both employed in a salary job and self-employed at the time of application. Applicants who reported working in a full-time salary job (35+ hours per week) were classified as salary workers; the remaining applicants were classified as self-employed.

while they were pursuing self-employment (*Family Support*). Finally, 51% of applicants had annual household income of \$25,000 or higher but less than \$75,000 (*Income: \$25K-\$75K*), while 35% had income of less than \$25,000 (*Income: <\$25K*). Notably, the distribution of employment characteristics, self-employment experience, and personal finances of respondents in the follow-up surveys was similar to that of all GATE applicants.

## **2. Post-Training Outcomes of GATE Applicants**

GATE applicants reported their post-training outcomes in the three follow-up surveys, conducted 6 months (Wave 1), 18 months (Wave 2), and 60 months (Wave 3) following random assignment. Using participant responses to the follow-up surveys, we construct the following measures of post-training outcomes: likelihood of starting a new business after random assignment; likelihood of starting a new business by Wave 1 that still operates at the time of each survey; likelihood of being self-employed at the time of each survey; and likelihood of employment (i.e., in a salary job or self-employed) at the time of each survey.

Table 4 presents the sample means of these outcomes for treatment and for control group participants, as well as a treatment-control means comparison. In general, treatment group participants had significantly higher post-training outcomes than their control group peers. In particular, 20.8% of treatment group and 15.5% of control group participants started a new business between random assignment and Wave 1. The difference was 5.3 percentage points and significant at the 1% level, indicating that participants in the treatment were more likely than their peers to start a new business within 6 months of random assignment. Similarly, treatment group participants were significantly more likely than others to start a new business by Wave 2 and by Wave 3.

New business sustainability was higher among treatment group than among control group participants. As Table 4 shows, 20.0% of the treated started a business by Wave 1 that was still in operation at the time of the Wave 1 survey, compared to 14.8% of those in the control group; the difference is 5.2 percentage points and significant at the 1% level. Similarly, the treated were more likely than others to start a new business by Wave 1 and sustain it 18 months and 60 months after random assignment. Treatment group participants were also significantly more likely than their control group peers to be self-employed at Wave 1, but equally likely to be self-employed at Wave 2 and at Wave 3.<sup>5</sup> Furthermore, the employment likelihood was higher among treatment group than among control group participants at Wave 1 but statistically equal at Waves 2 and 3.

In addition to the above outcomes, participants were also asked to provide information on their earnings and family income. Table 5 presents the average earnings of treatment and control group participants, as reported in the follow-up surveys. There was no statistically significant difference between treatment and control group participants in the total self-employment earnings at Wave 1 and Wave 2, but at Wave 3, treatment group participants had \$1,179 higher self-employment earnings than their peers. The remaining earnings variables – total earnings (self-employment earnings plus labor earnings) and household income – were statistically equal between treatment and control group participants.

The numbers in Tables 4 and 5 indicate that GATE may have had a significant impact on the post-training outcomes of participants. In the following section, we estimate GATE's impact on these outcomes using regression models to adjust for differences in participant characteristics between the treatment and the control group that may have occurred by chance. The analysis that

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<sup>5</sup> Self-employed at Wave 1 indicates that the individual was running his/her own business at the time of the survey. This business may be one that was already in operation at the time of random assignment, one that existed but was idle at the time of random assignment, or a new business started after random assignment.

follows will eliminate any disparities between the treatment and the control group outcomes that may have occurred as a result of differences in observable characteristics. Our regression analysis will also serve an additional purpose; it will enable us to test if there was a heterogeneous treatment effect, by employment status.

### 3. Regression-Adjusted Treatment Effects

In this section, we estimate the GATE treatment effect<sup>6</sup> on the aforementioned post-training outcomes and test whether there was a heterogeneous impact by employment status at the time of application. We do this by using the following regression model:

$$Y_i = \alpha \cdot T_i + X_i \cdot \beta + \gamma_1 \cdot T_i \cdot UNEMP_i + \gamma_2 \cdot T_i \cdot SELF_i + \gamma_3 \cdot T_i \cdot LFNO_i + e_i$$

The dependent variable in the above model is the post-training outcome for participant  $i$  ( $Y_i$ ), while  $T_i$  is a dummy indicating if participant  $i$  was in the treatment group. To adjust for differences in observed characteristics between the treatment and the control group, the regression model includes all available demographics, self-employment experience, and personal finance characteristics of participant  $i$  ( $X_i$ ), as shown in Tables 2 and 3.  $UNEMP_i$  is a dummy indicating if participant  $i$  was unemployed,  $SELF_i$  is a dummy indicating if participant  $i$  was self-employed, and  $LFNO_i$  is a dummy indicating if participant  $i$  was out of the labor force at the time of application. The parameter of  $T_i$  ( $\alpha$ ) is the baseline treatment effect, while the coefficients of the three interaction terms ( $\gamma_1, \gamma_2$ , and  $\gamma_3$ ) indicate if GATE had a heterogeneous impact on participants who were unemployed, self-employed, or not in the labor force at the time

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<sup>6</sup> Our focus is to estimate the average intent-to-treat effect, that is, the effect of being assigned in the GATE treatment group. From this point on, the average treatment effect refers to the average intent-to-treat effect.

of application. The above model is estimated using weighted linear least squares, using weights that adjust for survey non-response between treatment and control group participants.

### ***3.1. GATE Impact on Self-Employment***

Table 6 reports the regression results when the dependent variable is the likelihood of starting a new business by the time of each survey. As the first column shows, the baseline treatment effect on the likelihood of starting a new business by Wave 1 is statistically zero, while only the interaction treatment effect for the unemployed is positive and significant. This suggests that GATE only had a significant impact on starting a new business by Wave 1 for participants who were unemployed at the time of application. Similarly, GATE had a significant positive effect on the likelihood of starting a new business by Wave 2 only for unemployed participants; the baseline treatment effect was statistically zero while the interaction effect for the unemployed was positive and significant. The baseline and interaction treatment effects on the likelihood of starting a new business by Wave 3 were statistically insignificant.

Table 7 presents the regression results when the dependent variable is the likelihood of starting a new business by Wave 1 which still operates at the time of each survey. We again find that the treatment interaction effects for the unemployed are significantly positive; .098 at Wave 1, .073 at Wave 2, and .054 at Wave 3. The baseline and the remaining interaction treatment effects were statistically zero, indicating that GATE had no impact on new business sustainability for participants who were employed, self-employed, or out of the labor force at the time of application.

Because GATE had a significant impact on new business starts and sustainability for unemployed participants, we would expect that it also positively affected their self-employment

likelihood. As Table 8 shows, GATE had no impact on the self-employment likelihood of employed participants, while the treatment interaction effect for the unemployed was positive and significant at Wave 1 and at Wave 2. Finally, as Table 9 shows, none of the baseline and interaction treatment effects were significant when the dependent variable is the likelihood of employment at the time of each survey.

These analyses show that GATE significantly improved the self-employment outcomes of the unemployed, but had no significant effect on the outcomes of the remaining participants. Using the regression results from Tables 6-9, we construct GATE's treatment effect on each outcome for the unemployed, by taking the sum of the baseline treatment effect and the treatment interaction effect for the unemployed. Then, to assess the magnitude of the program's impact on the post-training outcomes of the unemployed, we compare the GATE treatment effect on each outcome with the control group mean for the unemployed.

As Table 10 shows, the average GATE treatment effect on the likelihood of starting a new business for the unemployed is 9.6 percentage points and is significant at the 1% level.<sup>7</sup> Table 10 also shows that 16.6% of unemployed participants in the control group started a new business by Wave 1. Comparing the treatment effect for the unemployed to their control group mean shows that, by Wave 1, GATE increased new business starts for unemployed participants by 58%. The results reported in Table 10 also show that GATE significantly increased new business starts by Wave 2 (+23%) and by Wave 3 (+11%) for unemployed participants.

GATE also led to significant improvements in new business sustainability among the unemployed. In particular, GATE led to an increase in the likelihood of starting a new business within 6 months of random assignment that was still in operation at Wave 1 by 58%. The

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<sup>7</sup> This is constructed using the regression results in Table 6 and it is equal to the sum of the baseline treatment effect (-.009) and the treatment interaction effect for the unemployed (.105).

positive impact of GATE on new business sustainability was maintained even 18 months (+52%) and 60 months (+53%) after random assignment. So, GATE led to a significant increase in new business starts among the unemployed within 6 months of random assignment, but it also doubled the likelihood of sustaining those businesses long after random assignment.

Partly due to these effects, GATE also significantly affected the likelihood of self-employment among unemployed participants. As Table 10 shows, the unemployed in the treatment group were 33% and 16% more likely than their peers to be self-employed, 6 and 18 months following random assignment. There was no effect, however, on the likelihood of self-employment at Wave 3. Table 10 also shows that GATE increased the likelihood of being employed at Wave 1 by 10% among unemployed participants, but had no impact on employment at Waves 2 and 3. This indicates that GATE had a significant short-term effect in assisting unemployed participants return to employment either through a salary job or through self-employment.

The regression results in Tables 6-8 also show there were important differences in the post-training self-employment outcomes of participants, regardless of their treatment/control group status. Male participants were more likely than female participants to start a new business, sustain their new business, and be self-employed within 6 months of random assignment. These differences, however, did not persist in the subsequent surveys. Black and other race applicants were also significantly less likely than whites to start a new business following random assignment and sustain that business. In fact, these differences in some cases persisted even 60 months after random assignment. These results confirm the findings of previous research on the important differences in self-employment participation and success by gender (e.g., Boden,

1989; Carr, 1996; Carter, 2000) and by race (e.g., Fairlie and Meyer, 1996; Fairlie, 1999; Fairlie and Robb, 2007).

The parameters of some of the remaining characteristics are also of interest. Participants who had a completed business plan at the time of application were more likely to start a new business by Waves 1 and 2, while they were also more likely to sustain their new business even 60 months after random assignment. Those with self-employment experience were more likely to start a new business than their peers, but were equally likely to sustain that business.<sup>8</sup> These results confirm the findings of previous work that individuals with a self-employment background are more likely to be successful in pursuing self-employment. Participants with a bad or no credit history were less likely than their peers to start a new business, start a new business and sustain it, and be self-employed. Moreover, those with low family income had lower self-employment likelihood and were less likely to start and sustain a new business after random assignment. The impact of a poor credit history and low income on self-employment persisted even five years after random assignment. These results are consistent with the conclusion of previous research that access to financing is an important deterrent to self-employment participation and success.

### ***3.2. GATE Impact on Participant Earnings***

Using the same specification as above, we estimate GATE's impact on self-employment earnings, labor earnings, total earnings, and household income. Based on the regression results, which are available upon request, we constructed the average GATE treatment effect for

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<sup>8</sup> We also tested if GATE was more effective among participants with previous self-employment experience or those with a formal business plan. There was no evidence of such heterogeneity in the treatment effect.

unemployed participants on the earnings outcomes.<sup>9</sup> We then compare the GATE treatment effect with the control group means of these outcomes for unemployed participants – results are reported in Table 11.

As Table 11 shows, GATE did not have a statistically significant impact on self-employment earnings for unemployed participants. It is noteworthy, though, that the treatment effect on self-employment earnings increases with each follow-up survey, providing an indication that GATE may lead to improvements in self-employment earnings over time. In fact, our results show that GATE had a significantly positive impact on total earnings (i.e., self-employment earnings plus labor earnings) and on the total household income of unemployed participants at Wave 3 (60 months after random assignment). In particular, GATE led to 10% higher total earnings and to 9% higher household income for unemployed participants at Wave 3. These impacts, which are significant at the 10% level, provide evidence that GATE led to improved earnings in the long-run. Although the mechanism that led to higher overall earnings and household income is unknown, we can speculate that GATE helped the unemployed in the treatment group gain valuable knowledge and skills that they otherwise would not have the opportunity to learn.

## **5. Conclusion**

Supporting self-employment through the public workforce development system has been a major focus of policymakers in the past 20 years. But following the success of early self-employment training programs and the authorization of self-employment assistance (SEA) programs by Congress in 1997, only 11 states passed SEA-enabling legislation. As of 2007, only Delaware, Maine, Maryland, New Jersey, New York, Oregon, and Pennsylvania were

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<sup>9</sup> We find no evidence that GATE affected earnings of participants who were employed, self-employed, or out of the labor force at the time of application.

implementing a SEA program, of which 3 states (New York, New Jersey, and Oregon) served more than 70% of all participants.

In 2002, during a period of slow economic activity, the U.S. Department of Labor and the Small Business Administration created Project GATE, a self-employment training program. The goal of Project GATE, implemented between 2003 and 2005 in Maine, Minnesota, and Pennsylvania, was to provide free self-employment services to individuals interested in starting their own business. Project GATE, which is the most recent large scale self-employment program in the U.S., was specifically designed as an experiment, where participants were randomly selected to receive services. In addition, the program was open to all interested individuals, regardless of their employment status, which was a departure from previous programs that targeted only the unemployed. Project GATE, therefore, provides a unique opportunity to test the effectiveness of self-employment programs and whether they have a heterogeneous impact on participants, by employment status.

Our analyses show that Project GATE had a significant impact on the post-training outcomes of individuals who were unemployed at the time of application, but had no impact on others. In particular, GATE led to significantly higher likelihood of starting a new business for unemployed participants – this impact persisted even five years after random assignment. Perhaps more importantly, GATE led to an increase in the likelihood of starting a new business soon after random assignment which was still in operation five years after random assignment by more than half. As a result, GATE led to significantly higher self-employment and employment likelihood for unemployed participants within 6 months of random assignment. Finally, although GATE did not lead to significant gains in self-employment earnings, there is evidence that

GATE led to a 10% increase in total earnings and household income for unemployed participants five years after random assignment.

The fact that GATE only had a significant impact on unemployed participants may not be very surprising. In fact, these findings are consistent with the idea that the unemployed are more motivated than their peers to pursue self-employment and, therefore, more likely to benefit from receiving self-employment assistance. Our results suggest that self-employment training programs, like Project GATE, are effective policy tools to assist unemployed workers who are interested in self-employment achieve their goals. On the other hand, such programs are not effective for individuals who are employed or out of the labor force. Based on our findings, we conclude that self-employment training programs that target unemployed workers interested in self-employment should be more widely adopted by states as part of their workforce development agenda. Assisting unemployed workers interested in self-employment may help them return to productive employment quickly, start successful new businesses, and contribute to the U.S. economy in the long run through the creation of new jobs.

Table 1: Random Assignment of GATE Applicants

	Total	Treatment	Control
All Applicants	4,198 (100%)	2,095 (50%)	2,093 (50%)
Wave 1 Respondents [response rate]	3,449 (100%) [82%]	1,758 (51%) [84%]	1,691 (49%) [81%]
Wave 2 Respondents [response rate] [cumulative response rate]	3,038 (100%) [88%] [72%]	1,563 (51%) [89%] [75%]	1,475 (49%) [87%] [70%]
Wave 3 Respondents [response rate] [cumulative response rate]	2,450 (100%) [81%] [58%]	1,274 (52%) [82%] [61%]	1,176 (48%) [80%] [56%]

Note: Reported in parenthesis are the sample proportions. Reported in brackets are the survey response rates.

Table 2: Baseline Characteristics of GATE Applicants

	All Applicants	Wave 1 Respondents	Wave 2 Respondents	Wave 3 Respondents
Total	4,198	3,449	3,038	2,450
Treatment Group	2,095 (50%)	1,758 (51%)	1,563 (51%)	1,274 (52%)
Site: Minneapolis/St. Paul	1,654 (39%)	1,383 (40%)	1,257 (41%)	1,053 (43%)
Site: Philadelphia	1,179 (28%)	904 (26%)	746 (25%)	553 (23%)
Site: Pittsburgh	595 (14%)	482 (14%)	428 (14%)	254 (14%)
Site: Maine	567 (14%)	513 (15%)	459 (15%)	368 (15%)
Site: Rural Minnesota	203 (5%)	167 (5%)	148 (5%)	121 (5%)
Male	2,247 (54%)	1,813 (53%)	1,584 (52%)	1,283 (52%)
Race: White	2,403 (58%)	2,067 (60%)	1,887 (62%)	1,595 (65%)
Race: Black	1,318 (31%)	1,035 (30%)	867 (29%)	640 (26%)
Race: Other	477 (11%)	347 (10%)	284 (9%)	215 (9%)
Hispanic	207 (5%)	169 (5%)	155 (5%)	125 (5%)
Married	1,836 (44%)	1,538 (45%)	1,377 (45%)	1,137 (46%)
Child Under 18	1,944 (46%)	1,556 (45%)	1,364 (45%)	1,364 (45%)
Age: Less 25 Yrs	183 (4%)	133 (4%)	105 (3%)	69 (3%)
Age: 25-34 Yrs	882 (21%)	674 (20%)	563 (19%)	427 (17%)
Age: 35-44 Yrs	1,365 (33%)	1,092 (32%)	958 (32%)	754 (31%)
Age: 45-54 Yrs	1,303 (31%)	1,138 (33%)	1,033 (34%)	878 (36%)
Age: 55+ Yrs	465 (11%)	412 (12%)	379 (12%)	322 (13%)
Less than High School	151 (4%)	102 (3%)	88 (3%)	58 (2%)
High School Diploma	935 (22%)	727 (21%)	622 (21%)	471 (19%)
Associate Degree/Some College	1,557 (37%)	1,271 (37%)	1,094 (36%)	853 (35%)
College Degree	764 (18%)	670 (19%)	614 (20%)	532 (22%)
Post-Graduate Degree	791 (19%)	679 (20%)	620 (20%)	536 (22%)
Born in US	3,775 (90%)	3,137 (91%)	2,781 (92%)	2,265 (92%)
Disabled	354 (8%)	306 (9%)	271 (9%)	210 (9%)

Note: Reported is the number of GATE applicants, by characteristic, with the proportion of all applicants in parenthesis.

Table 3: Employment Characteristics and Personal Finances of GATE Applicants

	All Applicants	Wave 1 Respondents	Wave 2 Respondents	Wave 3 Respondents
Total	4,198	3,449	3,038	2,450
Unemployed	2,089 (50%)	1,737 (50%)	1,539 (51%)	1,261 (51%)
Salary Employment	1,185 (28%)	937 (27%)	817 (27%)	635 (26%)
Self-Employed	548 (13%)	470 (14%)	419 (14%)	349 (14%)
Not in the Labor Force	376 (9%)	305 (9%)	263 (9%)	200 (8%)
Ever Self-Employed	1,547 (37%)	1,310 (38%)	1,176 (39%)	965 (39%)
Business Plan	949 (23%)	767 (22%)	664 (22%)	521 (21%)
Bad/No Credit History	1,874 (45%)	1,491 (43%)	1,265 (42%)	958 (39%)
Family Support	1,893 (45%)	1,561 (45%)	1,387 (46%)	1,124 (46%)
Income: \$25K or Less	1,483 (35%)	1,176 (34%)	1,008 (33%)	767 (31%)
Income: \$25K-\$75K	2,145 (51%)	1,782 (52%)	1,575 (52%)	1,277 (52%)
Income: > \$75K	570 (14%)	491 (14%)	455 (15%)	406 (17%)

Note: Reported is the number of GATE applicants, by characteristic, with the proportion of all applicants in parenthesis.

Table 4: Post-Training Employment Outcomes of GATE Applicants

	Treatment Group	Control Group	Difference
Started New Business			
By Wave 1	.208 (.010)	.155 (.009)	.053 [.013]***
By Wave 2	.332 (.012)	.281 (.012)	.051 [.017]**
By Wave 3	.455 (.014)	.416 (.014)	.039 [.020]*
Started New Business by Wave 1			
Still Operates at Wave 1	.200 (.010)	.148 (.009)	.052 [.013]***
Still Operates at Wave 2	.161 (.009)	.119 (.008)	.043 [.013]***
Still Operates at Wave 3	.125 (.009)	.084 (.008)	.041 [.012]***
Self-Employed			
At Wave 1	.404 (.012)	.359 (.012)	.045 [.017]***
At Wave 2	.429 (.013)	.409 (.013)	.020 [.018]
At Wave 3	.389 (.014)	.378 (.014)	.011 [.020]
Employed			
At Wave 1	.751 (.010)	.724 (.011)	.026 [.015]*
At Wave 2	.754 (.011)	.742 (.011)	.011 [.016]
At Wave 3	.783 (.012)	.797 (.012)	.013 [.016]

Note: Wave 1 respondents = 3,449 (1,759 treatment, 1,691 control); Wave 2 respondents = 3,038 (1,563 treatment, 1,475 control); Wave 3 respondents (1,274 treatment, 1,176 control). Reported are means with standard errors in parenthesis. Difference is the treatment-control means comparison, with standard error in brackets. Statistical significance: \*, \*\*, \*\*\* = 10%, 5%, 1%.

Table 5: Post-Training Earnings of GATE Applicants

	Treatment Group	Control Group	Difference
<b>Total Self-Employment Earnings</b>			
At Wave 1	2,602 (285)	3,464 (342)	-862 [443]
At Wave 2	3,983 (321)	4,236 (371)	-253 [488]
At Wave 3	5,877 (543)	4,698 (476)	1,179 [713]*
<b>Total Earnings</b>			
At Wave 1	23,637 (680)	24,701 (702)	-1,064 [977]
At Wave 2	29,477 (854)	29,447 (839)	31 [1,199]
At Wave 3	44,062 (1,241)	41,545 (1,219)	2,516 [1,743]
<b>Household Income</b>			
At Wave 1	33,419 (835)	35,233 (965)	-1,813 [1,274]
At Wave 2	38,232 (1,035)	36,239 (1,107)	1,993 [1,514]
At Wave 3	56,975 (1,328)	55,628 (1,483)	1,347 [1,985]

Note: Wave 1 respondents = 3,449 (1,759 treatment, 1,691 control); Wave 2 respondents = 3,038 (1,563 treatment, 1,475 control); Wave 3 respondents (1,274 treatment, 1,176 control). Reported are means with standard errors in parenthesis. Difference is the treatment-control means comparison, with standard error in brackets. Statistical significance: \*, \*\*, \*\*\* = 10%, 5%, 1%.

Table 6: Regression Results, Likelihood of Starting a New Business

	By Wave 1	By Wave 2	By Wave 3
Treatment	-.009 (.021)	.014 (.030)	-.004 (.040)
Treatment x Unemployed	.105 (.029)***	.067 (.039)*	.054 (.049)
Treatment x Self-Employed	.059 (.041)	.075 (.056)	.050 (.070)
Treatment x Not in LF	.044 (.050)	-.016 (.065)	.033 (.084)
Unemployed	.060 (.020)***	.062 (.028)**	.060 (.036)*
Self-Employed	-.016 (.030)	-.010 (.040)	.033 (.053)
Not in LF	.074 (.037)**	.116 (.050)**	.116 (.062)*
Male	.026 (.013)**	.020 (.018)	-.007 (.022)
Black	-.049 (.018)***	-.012 (.024)	-.005 (.032)
Other Race	-.075 (.023)***	-.078 (.032)**	-.023 (.041)
Hispanic	-.017 (.030)	-.044 (.037)	-.044 (.047)
Married	-.002 (.017)	.020 (.022)	.044 (.027)
Child Under 18 Yrs	-.031 (.014)**	-.009 (.019)	.015 (.023)
Age: Less 25 Yrs	-.005 (.033)	.034 (.049)	.071 (.068)
Age: 25-34 Yrs	.007 (.019)	.039 (.025)	.140 (.032)***
Age: 45-54 Yrs	-.025 (.017)	-.028 (.021)	-.041 (.026)
Age: 55+ Yrs	-.075 (.022)***	-.050 (.029)*	-.059 (.036)*
Disabled	.005 (.024)	-.001 (.031)	.003 (.039)
Born in the U.S.	.018 (.024)	-.003 (.034)	-.005 (.043)
Less than High School	-.020 (.034)	-.064 (.045)	-.064 (.067)
Some College	.041 (.017)**	.046 (.023)**	.071 (.029)**
College Degree	.016 (.021)	.019 (.027)	.023 (.033)
Post-Graduate Degree	.054 (.021)**	.065 (.027)**	.056 (.033)*
Ever Self-Employed	.041 (.015)**	.042 (.020)**	.075 (.024)***
Has Business Plan	.052 (.016)***	.056 (.021)***	.030 (.026)
Bad/No Credit History	-.032 (.014)**	-.054 (.019)***	-.034 (.026)
Family Support	.006 (.015)	.011 (.020)	.005 (.024)
Income: Less \$25K	-.061 (.014)***	-.060 (.020)***	-.064 (.026)**
Income: \$75K+	.077 (.024)***	.073 (.028)**	.102 (.032)***
R-squared	.069	.059	.063

Note: Dependent variable is the likelihood of starting a new business by Wave 1/Wave 2/Wave 3. Reported are weighted linear regression estimates with standard errors in parenthesis. Site fixed effects also included but not reported. Statistical significance: \*, \*\*, \*\*\* = 10%, 5%, 1%.

Table 7: Regression Results, Started New Business by Wave 1, Still in Operation

	Started New Business by Wave 1, Still Operates		
	At Wave 1	At Wave 2	At Wave 3
Treatment	-.004 (.021)	-.004 (.019)	-.007 (.020)
Treatment x Unemployed	.098 (.028)***	.071 (.026)***	.056 (.026)**
Treatment x Self-Employed	.059 (.041)	.056 (.041)	.053 (.039)
Treatment x Not in LF	.028 (.049)	.030 (.049)	.018 (.049)
Unemployed	.014 (.020)	.020 (.019)	.012 (.019)
Self-Employed	-.008 (.029)	.015 (.029)	.005 (.026)
Not in LF	.079 (.037)**	.063 (.036)*	.065 (.038)*
Male	.027 (.013)**	.016 (.012)	.019 (.012)
Black	-.049 (.017)***	-.033 (.016)**	-.024 (.015)
Other Race	-.075 (.022)***	-.093 (.020)***	-.088 (.017)***
Hispanic	-.021 (.029)	-.009 (.027)	-.036 (.024)
Married	-.005 (.016)	.006 (.016)	-.019 (.016)
Child Under 18 Yrs	-.034 (.014)**	-.030 (.013)**	-.029 (.013)**
Age: Less 25 Yrs	-.017 (.031)	-.046 (.025)*	-.003 (.032)
Age: 25-34 Yrs	.004 (.018)	.010 (.018)	0.024 (.019)
Age: 45-54 Yrs	-.016 (.016)	-.003 (.016)	-.008 (.015)
Age: 55+ Yrs	-.066 (.022)***	-.050 (.021)**	-.047 (.020)**
Disabled	.008 (.023)	-.015 (.022)	-.042 (.018)**
Born in the U.S.	.007 (.024)	.010 (.023)	.000 (.020)
Less than High School	-.013 (.034)	.018 (.035)	.001 (.032)
Some College	.035 (.017)**	.018 (.016)	.025 (.015)
College Degree	.010 (.021)	.019 (.020)	.018 (.019)
Post-Graduate Degree	.051 (.021)**	.053 (.021)**	.044 (.019)**
Ever Self-Employed	.003 (.015)	.001 (.014)	.003 (.013)
Has Business Plan	.046 (.016)***	.038 (.015)**	.036 (.015)**
Bad/No Credit History	-.035 (.014)**	-.046 (.014)***	-.027 (.013)**
Family Support	.012 (.015)	.003 (.014)	.012 (.014)
Income: Less \$25K	-.053 (.014)***	-.034 (.014)**	-.043 (.014)***
Income: \$75K+	.073 (.024)***	.055 (.023)**	.023 (.021)
R-squared	.066	.063	.054

Note: Dependent variable is the likelihood of starting a new business by Wave 1, which is still in operation at Wave 1/Wave 2/Wave 3. Reported are weighted linear regression estimates with standard errors in parenthesis. Site fixed effects also included but not reported. Statistical significance: \*, \*\*, \*\*\* = 10%, 5%, 1%.

Table 8: Regression Results, Self-Employment Likelihood

	At Wave 1	At Wave 2	At Wave 3
Treatment	.010 (.028)	.005 (.032)	.028 (.037)
Treatment x Unemployed	.095 (.035)***	.056 (.030)*	-.024 (.046)
Treatment x Self-Employed	-.036 (.047)	-.050 (.043)	-.056 (.066)
Treatment x Not in LF	.006 (.060)	-.003 (.066)	.003 (.081)
Unemployed	.039 (.026)	.027 (.029)	.072 (.034)**
Self-Employed	.412 (.036)***	.350 (.040)***	.301 (.049)***
Not in LF	.108 (.045)**	.066 (.050)	.117 (.059)**
Male	.042 (.016)***	.059 (.018)***	.033 (.020)
Black	-.034 (.022)	-.017 (.025)	.003 (.031)
Other Race	-.066 (.029)**	-.090 (.032)***	-.038 (.038)
Hispanic	-.040 (.033)	-.059 (.036)	-.057 (.043)
Married	.018 (.020)	.040 (.022)*	.025 (.027)
Child Under 18 Yrs	-.028 (.017)	-.019 (.019)	-.014 (.022)
Age: Less 25 Yrs	-.030 (.040)	-.036 (.048)	.035 (.067)
Age: 25-34 Yrs	.016 (.022)	.031 (.025)	.062 (.031)**
Age: 45-54 Yrs	-.032 (.019)*	-.037 (.021)*	-.047 (.024)*
Age: 55+ Yrs	-.060 (.027)**	-.021 (.030)	-.049 (.035)
Disabled	-.039 (.029)	-.088 (.032)***	-.090 (.036)**
Born in the U.S.	.103 (.028)***	.073 (.034)**	.030 (.041)
Less than High School	-.025 (.044)	-.063 (.048)	-.045 (.063)
Some College	.054 (.020)***	.047 (.023)**	.055 (.027)**
College Degree	.104 (.025)***	.078 (.027)***	.098 (.031)***
Post-Graduate Degree	.117 (.025)***	.107 (.028)***	.107 (.031)***
Ever Self-Employed	.180 (.018)***	.172 (.020)***	.189 (.023)***
Has Business Plan	.062 (.019)***	.042 (.021)**	.040 (.025)
Bad/No Credit History	-.050 (.017)***	-.049 (.019)**	-.018 (.023)
Family Support	.005 (.018)	-.007 (.020)	.004 (.023)
Income: Less \$25K	-.038 (.018)**	-.029 (.021)	-.045 (.024)*
Income: \$75K+	.088 (.025)***	.046 (.028)*	.028 (.031)
R-squared	.202	.164	.110

Note: Dependent variable is the likelihood of being self-employed at Wave 1/Wave 2/Wave 3. Reported are weighted linear regression estimates with standard errors in parenthesis. Site fixed effects also included but not reported. Statistical significance: \*, \*\*, \*\*\* = 10%, 5%, 1%.

Table 9: Regression Results, Employment Likelihood

	At Wave 1	At Wave 2	At Wave 3
Treatment	.022 (.028)	.037 (.030)	-.007 (.030)
Treatment x Unemployed	.046 (.035)	-.013 (.038)	-.005 (.040)
Treatment x Self-Employed	-.060 (.043)	-.076 (.055)	-.006 (.054)
Treatment x Not in LF	-.066 (.064)	-.068 (.070)	-.095 (.077)
Unemployed	-.103 (.026)***	-.013 (.028)	-.024 (.029)
Self-Employed	.035 (.015)**	.020 (.033)	-.015 (.038)
Not in LF	-.185 (.048)***	-.068 (.070)	-.069 (.054)
Male	.035 (.015)**	-.013 (.028)	-.035 (.018)*
Black	.009 (.023)	.057 (.024)**	-.048 (.028)*
Other Race	.056 (.029)*	-.052 (.033)	-.083 (.034)**
Hispanic	.000 (.035)	.001 (.038)	-.077 (.040)*
Married	-.003 (.019)	.014 (.021)	.027 (.022)
Child Under 18 Yrs	-.013 (.017)	-.016 (.018)	.038 (.020)*
Age: Less 25 Yrs	.031 (.038)	.041 (.043)	.015 (.062)
Age: 25-34 Yrs	.033 (.021)	.053 (.023)**	.068 (.026)***
Age: 45-54 Yrs	-.036 (.019)*	-.008 (.020)	-.038 (.022)*
Age: 55+ Yrs	-.080 (.027)***	-.044 (.029)	-.121 (.031)***
Disabled	-.153 (.030)***	-.160 (.033)***	-.192 (.039)***
Born in the U.S.	.091 (.030)***	.051 (.034)	-.020 (.034)
Less than High School	-.004 (.048)	-.026 (.052)	.092 (.058)
Some College	.016 (.021)	.033 (.022)	.030 (.027)
College Degree	.010 (.024)	-.032 (.026)	.077 (.028)***
Post-Graduate Degree	.009 (.025)	-.032 (.027)	.095 (.028)***
Ever Self-Employed	.082 (.017)***	.057 (.018)***	.087 (.019)***
Has Business Plan	.046 (.017)***	.021 (.019)	-.008 (.022)
Bad/No Credit History	.013 (.017)	.006 (.018)	-.032 (.020)
Family Support	.008 (.017)	.031 (.018)*	-.026 (.020)
Income: Less \$25K	.016 (.019)	.009 (.019)	-.097 (.022)***
Income: \$75K+	-.035 (.024)	-.056 (.026)**	.005 (.023)
R-squared	.077	.065	.107

Note: Dependent variable is the likelihood of being employed in a salary job and/or self-employed at Wave 1/Wave 2/Wave 3. Reported are weighted linear regression estimates with standard errors in parenthesis. Site fixed effects also included but not reported. Statistical significance: \*, \*\*, \*\*\* = 10%, 5%, 1%.

Table 10: GATE Impact on Self-Employment Outcomes, Unemployed Participants

	Treatment Effect	Control Group Mean	GATE Impact
Start a New Business			
By Wave 1	.096 (.019)***	.166	+58%
By Wave 2	.081 (.024)***	.309	+26%
By Wave 3	.050 (.029)*	.430	+12%
New Business Sustainability			
At Wave 1	.091 (.019)***	.157	+58%
At Wave 2	.067 (.018)***	.130	+52%
At Wave 3	.049 (.017)***	.092	+53%
Self-Employed			
At Wave 1	.105 (.022)***	.318	+33%
At Wave 2	.061 (.024)**	.380	+16%
At Wave 3	.004 (.028)	.359	--
Employed			
At Wave 1	.068 (.022)***	.688	+10%
At Wave 2	.024 (.022)	.734	--
At Wave 3	-.012 (.025)	.779	--

Note: The first column reports the regression-adjusted treatment effect for unemployed participants, with standard errors in parenthesis. The second column reports the control group mean for unemployed GATE participants. The third column reports the GATE impact on each outcome as a percentage of the control group mean.

Table 11: GATE Impact on Earnings, Unemployed Participants

	Treatment Effect	Control Group Mean	GATE Impact (%)
<b>Self-Employment Earnings</b>			
At Wave 1	172 (512)	2,488 (11,246)	--
At Wave 2	310 (681)	3,699 (13,739)	--
At Wave 3	1,556 (1,030)	4,606 (16,679)	--
<b>Total Earnings</b>			
At Wave 1	-359 (1,412)	23,293 (29,621)	--
At Wave 2	1,226 (1,720)	30,288 (34,290)	--
At Wave 3	4,340 (2,435)*	43,403 (43,983)	+10%
<b>Household Income</b>			
At Wave 1	-757 (1,617)	33,155 (41,448)	--
At Wave 2	3,377 (2,110)	35,941 (44,567)	--
At Wave 3	5,019 (2,939)*	56,473 (52,689)	+9%

Note: The first column reports the regression-adjusted treatment effect for unemployed participants, with standard errors in parenthesis. The second column reports the control group mean for unemployed GATE participants. The third column reports the GATE impact on each outcome as a percentage of the control group mean.

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