Ten Years of the Workforce Investment Act (WIA): Interpreting the Research on WIA and Related Programs

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To remain competitive in today’s global economy, U.S. workers increasingly need a strong foundation in core work competencies and advanced technical skills. In the past two decades, however, concerns have mounted about the widening gap between U.S. employers’ need for skilled labor and the availability of workers with the requisite skills. In one national survey, more than 80 percent of U.S. manufacturers reported a shortage of skilled workers, and nearly half viewed the skill levels of their employees as poor.\textsuperscript{1} This skills shortage contributes to the growing earnings gap between those who are educated and skilled and those who are not.\textsuperscript{2} The continuing poor performance of U.S. youth in mathematics, science, and literacy--compared to their counterparts in other countries--suggests that the skills shortage is unlikely to attenuate in the near future.\textsuperscript{3}

In response to rising concerns about our nation’s ability to meet these growing demands on the U.S. workforce, Congress made historic reforms to the public workforce investment system in 1998, enacting the Workforce Investment Act (WIA). Congress viewed WIA, which replaced the 16-year-old Job Training Partnership Act (JTPA), as a way to end “business as usual” in the workforce investment system. WIA consolidated JTPA’s fragmented system of employment and training programs and provided universal access to basic services. It also promoted customer choice, gave state and local agencies more flexibility in service design, strengthened local accountability for customer outcomes, engaged businesses, and fundamentally changed the services provided to youth. WIA is currently the largest source of federally funded employment

\textsuperscript{1} National Association of Manufacturers and Deloitte & Touche (2005).

\textsuperscript{2} Heckman and Krueger (2003); Katz and Autor (1999); Lemieux (2006a and 2006b).

and training, serving over 2 million people annually through its adult, dislocated worker, and youth programs, at a cost of $3 billion.  

This paper describes the existing research on WIA and related programs. During the implementation of WIA, the United States Department of Labor (USDOL) initiated three large studies of the new program—the National Evaluation of WIA Implementation (D’Amico et al. 2005), the Evaluation of the Individual Training Account/Eligible Training Provider Demonstration (D’Amico et al. 2004), and the Individual Training Account Experiment (McConnell et al. 2006). Other studies have focused on implementation and early operations of the program as well as impacts on participants. Studies of earlier programs, including JTPA, may also have relevance for assessing the potential benefits of WIA.

In the remainder of this paper, I first discuss findings from studies of WIA implementation and early operations. The next two sections review estimated effects of WIA and related programs on the earnings and employment of participants, including both the adult and dislocated worker target populations. Then I describe findings from the Individual Training Account (ITA) Experiment, which assessed the effects of different models for structuring and administering ITAs, the training vouchers used under WIA to fund training. The final section provides a summary and interpretation of the findings.

1. Research on WIA Implementation

Several studies have examined implementation of WIA during the six years after it became fully operational.  

My summary of the major findings from these studies is organized around seven key principles of the WIA program: .

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4 U.S. Department of Labor, ETA (2007)
• **Service coordination.** WIA has generally succeeded in increasing service coordination through local one-stop service centers, but there have been challenges. Perhaps the greatest has been determining the appropriate contribution of various program partners to support the one-stop infrastructure; to date, WIA’s mandatory partners have made only limited financial contributions. Other challenges to coordination include conflicting goals among partners and practical obstacles that impede partnerships, such as lack of common data systems.

• **Customer empowerment.** Local workforce investment agencies have enthusiastically embraced customer choice by offering a wide range of core and intensive services and establishing ITAs to facilitate customer choice of training. However, use of the eligible training provider (ETP) list has had its weaknesses. For example, some providers have been unwilling to supply the information required to be on the list, and others have furnished data of questionable reliability.⁶

• **Universal access.** State and local agencies have made great progress toward the goal of universal access. It has been challenging, however, for states to provide adequate core services with available resources. Tensions have arisen between (1) emphasizing core and intensive services for a wide range of customers, and (2) providing more extensive training for a smaller group. Reaching the most disadvantaged customers—including those with limited English proficiency (LEP), ex-offenders, those with limited computer literacy, and residents of sparsely populated rural areas—has also been difficult.⁷

• **Accountability.** Officials at state and local agencies expressed the following concerns about WIA’s performance measures as first implemented: the 17 performance goals were too numerous and complex; the data used to measure performance were of uncertain reliability and received too late by agencies to use in managing the program; and local agencies tended to focus on “managing” the performance system to “make the numbers.” Responding to these issues and the need for common performance measures in a wide range of programs, DOL replaced WIA performance measures in 2005 with the Common Measures. These measures apply to the performance of all DOL programs administered by the Employment and Training Administration as well as employment and training programs administered by other federal departments (see DOL, Training and Employment Guidance Letter 17-05, available at [www.doleta.gov/Performance/quickview/WIAPMeasures.cfm](http://www.doleta.gov/Performance/quickview/WIAPMeasures.cfm)).

(continued)


⁷ Dunham (2003).
• **Engaging the private sector.** Workforce agencies’ level of success in connecting with the private sector has varied. Some have been successful, but others are struggling with engaging businesses in planning and providing them with high-quality services.

• **Local flexibility.** States and local agencies have embraced the flexibility WIA provides; as a result, service design and delivery structures vary markedly. Particularly large differences across sites occur in how adults and dislocated workers move through the system’s tiered service levels, how priority for target groups is established, and how much emphasis is placed on training.

• **Youth program improvement.** WIA’s changes to youth programs have generally been implemented. Nonetheless, agencies have faced challenges in identifying eligible providers of youth services, finding and retaining at-risk out-of-school youth, verifying and documenting WIA eligibility, locating qualified mentors, enlisting youth and parents to serve on youth councils, and using interim performance measures

2. **Research on the Impacts of WIA and Related Programs on Disadvantaged Adults**

To date, no large-scale experimental evaluation of WIA’s impacts on participants has been conducted. However, some recent nonexperimental studies, described below, shed light on WIA’s impacts on participant employment and earnings. Furthermore, a long history of research on related employment and training programs can help assess WIA’s likely effects. Much of this earlier research has been summarized elsewhere (see LaLonde 1995 and King 2004, for example), so here I focus most of my attention on the recent work.

**Pre-1995 Evidence**

Studies of WIA and its predecessors—the Manpower Development and Training Act (MDTA), the Comprehensive Employment and Training Act (CETA), and the Job Training and Partnership Act (JTPA) programs—and other employment and training programs targeted to disadvantaged workers date back to the 1970s. LaLonde (1995) summarizes research generated prior to 1995. Evidence from these studies suggests that earlier government training programs
generated modest increases in participant earnings. For example, LaLonde argues that the studies of MDTA and CETA show that these programs increased post-program earnings for disadvantaged adult women but had mixed or even negative effects on disadvantaged men. Based on this evidence, LaLonde concludes that conventional employment and training services provided by WIA’s predecessors benefited women, but other and perhaps more intensive services were needed for men.

For disadvantaged women, experimental evidence summarized by LaLonde demonstrates that earnings gains are generated by a variety of employment and training strategies—including some that are quite inexpensive—and that gains, although modest, can persist for several years. Programs associated with successful outcomes for women include the National Supported Work Demonstration, which tested a supported work experience strategy to increase long-term AFDC recipients’ earnings (Hollister, Kemper, and Maynard 1984). Furthermore, Supported Work’s positive effects on earnings persisted for at least seven years (Couch 1992) after the program ended. Some low-cost job search assistance interventions have also been found to significantly increase the post-program earning of disadvantaged women, and in some cases the effects have been surprisingly persistent (Friedlander 1988)

**Post-1995 Evidence**

A critical turning point in the creation of evidence on the efficacy of employment and training programs was DOL’s National JTPA Study (Bloom et al. 1993). The study used a research design based on random assignment of applicants to a treatment group offered JTPA services or to a control group denied access to JTPA. Furthermore, the study sample was intended to be nationally representative, so that findings could be generalized to the program nationwide. This was one of the first large-scale efforts to assess the effects of an ongoing
national workforce development program using random assignment. Although the study was unsuccessful in recruiting a nationally representative sample, the researchers succeeded in implementing the random assignment design and obtaining internally valid and reliable estimates of the JTPA programs overall as well as impacts of different service strategies.

Findings from the National JTPA Study showed that the program generated a modest increase in the earnings and employment of both disadvantaged women and men who enrolled in the program. Bloom et al. (1997) reported that JTPA increased total earnings among women enrollees by an average of $2,738 (converted to 2005 dollars) over the 10 quarters following random assignment (see top of Table 1). For disadvantaged men, JTPA generated a somewhat smaller increase in earnings—$2,383, on average. As a percentage of control group means, the earnings increase for women—which was 15 percent—was substantially larger than the increase for men—8 percent. After accounting for program costs, the net benefits per enrollee, reported in the final column of Table 1, were nearly identical for women ($763 per enrollee) and men ($781 per enrollee). Estimated impacts on post-assignment employment rates, reported in Bloom et al. (1993), were also modest. For women, JTPA increased the rate of employment over the six quarters after random assignment by 3.5 percentage points, while the impact for men was a bit larger at 4.8 percent.

In the national study, JTPA counselors referred eligible applicants to one of three service strategies—(1) classroom training in occupational skills, (2) a mix of on-the-job training (OJT) and/or job search assistance (JSA), and (3) other services, which could include job search assistance, basic education, work experience, or other miscellaneous offerings, but not classroom training in occupational skills or OJT. Bloom et al (1997) found that the estimated impacts of JTPA on adult enrollees varied a bit by service strategy subgroup, at least for women, as shown
in Table 1. For women, the OJT/JSA strategy and the other services strategy produced significantly positive impacts, increasing earnings per enrollee by $3,416 and $5,886, respectively. In contrast, the point estimate for the group recommended to classroom training in occupational skills was substantially smaller, at $939, and not statistically significant. For men, the estimates were moderate and consistently positive across the three service strategies; however, none of these estimates was statistically significant, even though the overall impact estimate for men was positive and statistically significant.

Subsequent analyses of the National JTPA Study sample by the GAO (1996) highlight the persistence of JTPA impacts on earnings. GAO extended the follow-up period for measuring program impacts by compiling social security earnings records on the sample members, which allowed calculation of JTPA impacts five to six years after random assignment. The analyses demonstrate that earnings impacts persisted beyond the first 10 post-assignment quarters in the original study. Over the first five to six years post-assignment, JTPA increased earnings by an average of $4,021 per woman assigned to the treatment group and $3,996 per man. Because only about two-thirds of assignees actually enrolled in JTPA, the long-run effects per enrollee were larger—over $5,000, on average, for both women and men.

After WIA replaced JTPA in 1998, a number of studies attempted to examine impacts related to the new program. An early example is the Individual Training Account (ITA) Experiment, sponsored by DOL to examine the relative effects of different methods of administering ITAs, the primary vehicle for funding training under WIA. The experiment, discussed in more detail below, was based on a research design in which WIA training applicants were randomly assigned to three ITA models being tested. In contrast to the National JTPA Study, the ITA Experiment made no attempt to deny services to any applicants. In the past year,
however, DOL initiated a new experimental study of WIA impacts, based on random assignment of applicants to a group that has access to all WIA services or to one or more groups with limited or no access (similar to what was done in the National JTPA Study). The study (McConnell et al. 2009) is designed to measure the impacts and cost-effectiveness of WIA services on the adult, dislocated worker, and youth populations. It is based on a nationally representative sample of WIA applicants, similar to what was intended in the National JTPA Study, to generate impact estimates that are representative of the program as it operates across the country.

Study designs that include random assignment provide unbiased estimates of WIA impacts with a known degree of precision, based on differences in outcomes between treatment and control groups. However, the need to randomly assign new WIA applicants requires time to build the needed sample and measure the outcomes of interest over an appropriate observation period. It will be at least a few years before the new experimental study will generate useful impact estimates.

In contrast, studies that do not rely on random assignment can work with retrospective data to measure outcomes for prior WIA applicants and matched comparison groups, assuming such data are available. The program administrative data in the Workforce Investment Act Standardized Record Data (WIASRD) can be combined with state unemployment insurance (UI) claims records, state UI wage records, and state Employment Service (ES) records to support this kind of retrospective research. Two groups of researchers—one led by Carolyn Heinrich (Heinrich et al. 2009) and one led by Kevin Hollenbeck (Hollenbeck et al. 2005 and Hollenbeck 2009)—have used administrative data to conduct nonexperimental studies of WIA impacts on participant earnings and employment. Both of these efforts have carefully matched various groups of WIA participants to comparison groups of individuals who did not participate in WIA,
usually drawn from the population of UI recipients or ES registrants. While the strength of this method is the ability to work with retrospective data, the weakness is that impact estimates may be biased if the comparison groups differ from WIA participants in ways that are not observed or cannot be adequately controlled for in the statistical methods. The prevalence of bias in nonexperimental estimates of the impacts of employment and training programs and related policy interventions is well-documented (see, for example, LaLonde 1986; Fraker and Maynard 1987; Glazerman, Levy, and Myers 2003; and Peikes, Moreno, and Orzol 2008). Furthermore, it is usually difficult to determine the direction of the bias (Glazerman, Levy, and Myers 2003). Nonetheless, recent refinements in methodology and data may have increased the probability that nonexperimental methods can generate unbiased estimates under some conditions (Heckman, LaLonde, and Smith 1999; and Dehejia and Wahba 1999). While the Heinrich et al. and Hollenbeck et al. teams use broadly similar data and the same estimation methods, their approach to handling the data diverges, largely due to characteristics of the data made available to the two teams. I will highlight how these variations may explain resulting differences in the impact estimates generated.

For disadvantaged adults, the evidence on WIA impacts in Heinrich et al. (2009) and Hollenbeck at al. (2005, 2009) suggests that WIA generates increases in earnings and employment that persist for at least a few years, and these increases tend to be larger than those estimated for JTPA. Heinrich et al. (2009) estimate that WIA’s overall effect is to increase earnings for men and women by $320 to $692 per quarter for 16 quarters post-program-entry. WIA also boosts employment rates over this same period by 5 to 13 percentage points per quarter, on average (see Table 1). The earnings impacts tend to be a bit higher for women—starting at around $550 in the first quarter and generally fluctuating between $450 and $650 for
the remainder of the 16 quarters. In contrast, the initial effects are large for men—about $700 and $550 in the first and second quarters—but subsequently fluctuate between $300 and $500 per quarter. Despite the difference in the point estimates, we cannot conclude from these findings that WIA impacts are larger for women, given the uncertainty associated with the nonexperimental methods and the standard errors associated with the point estimates. Regardless, the time pattern of the estimates shows that for both men and women, earnings increases occur immediately—in the first quarter after program entry.

The corresponding estimates of WIA overall impacts on earnings presented in Hollenbeck et al. (2005) tend to lie above the top end of the range of estimates presented in Heinrich et al. (2009). The Hollenbeck et al. estimates, presented in Table 1, imply that WIA overall increased earnings for women by $887 per quarter over the first eight quarters after program exit. Over the same period, WIA increased the share of time women were employed by 10.6 percentage points. For men, WIA increased earnings by $773 per quarter and employment by 6.2 percent.

The Hollenbeck et al. (2005) estimates tend to be higher partly because program exit point is used to begin the observation period. Measuring outcomes from the exit point, which Hollenbeck et al. had to do because of available data, effectively ignores the opportunity costs WIA participants incur if program participation keeps them from going back to work quickly and reduces their earnings. In contrast, using the point of program entry to begin the observation period, employed by Heinrich et al (2009) and other studies discussed in this paper, allows earnings impact estimates to fully capture opportunity costs associated with foregone earnings. Hollenbeck (2009) addresses this issue by separately calculating comprehensive net benefit estimates for WIA using another data set, treating foregone earnings as part of program costs. His estimate of WIA’s social net benefits per adult participant is $1,446 for the 10 quarters
following program exit. This implies that for adult participants the post-exit earnings increase that Hollenbeck (2009) attributes to WIA participation is large enough to outweigh the sum of any foregone earnings participants incurred and the direct costs of the program.

Both the Heinrich et al. and Hollenbeck et al. studies attempt to separate the effects of WIA training from the effects of other WIA services. For adults, estimates from both studies suggest the impacts of training average several hundred dollars per quarter after the initial quarters, as shown in Table 1. The Heinrich et al. estimates of the WIA training impacts on quarterly earnings are near zero shortly after program entry but increase over the 16 quarters in the observation period. In contrast, in the Hollenbeck et al. estimates, there is no lag in earnings impacts, and estimates averaged over the observation period tend to lie near the high end of the (wide) range of the Heinrich et al. estimates shown in Table 1. Again, using the program exit point to begin measuring impacts is one reason Hollenbeck et al.’s estimates tend to be higher. Also, Hollenbeck et al. (2005) use a broader comparison group, including ES-only participants as well as WIA non-trainees, which may imply that the difference between the trainee and non-trainee groups in terms of services received goes beyond just WIA training. Regardless, both sets of estimates imply that the average marginal effects of WIA training on adult earnings are positive.

Table 1 also presents the Heinrich et al. (2009) estimates for WIA core and intensive services. The range of estimated effects of core/intensive services on quarterly earnings seems broadly similar to the range of estimated training effects shown, but the patterns differ markedly. In the case of WIA core-intensive services, the effects occur immediately and then decline quickly over time, while the WIA training effects appear gradually and then increase over time. The declining pattern for core/intensive impacts, combined with concerns about the accuracy of
the nonexperimental methods in estimating core/intensive services, lead the authors to conclude that the true program impacts of the WIA core/intensive services are likely to be no more than $100 to $200 per quarter.

3. Impacts of WIA and Related Programs on Dislocated Workers

Pre-1995 Research

LaLonde (1995) asserted that at the time his article was written, relatively little was known from either nonexperimental or experimental evaluations about the impact of training on the earnings and employment of dislocated workers. Although these workers were served under JTPA Title III (and subsequently under the Economic Dislocation and Worker Adjustment Assistance—EDWAA—Act), they were not part of the National JTPA Study. Two key demonstrations from this period targeted dislocated workers—the Texas Worker Adjustment Demonstration conducted in 1984 to 1987 (Bloom 1990), and the New Jersey UI Reemployment Demonstration conducted in 1986 to 1987 (Corson et al. 1989). Both demonstrations used an experimental design to test the effect of one treatment that entailed JSA offered to all participants, as well as an alternative treatment that combined JSA with an offer of classroom training or OJT.8 Both demonstrations found that the JSA-only treatments speeded reemployment and increased earnings, although the impacts were usually short-lived. One exception occurred for women in the Texas demonstration, whose earnings impacts persisted for a full year after random assignment. In both demonstrations, the alternative treatment that

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8 Although the treatments in the Texas and New Jersey demonstrations were similar, the target populations and conditions of participation differed somewhat. The New Jersey project targeted new UI recipients across the state who had worked for their previous employer for more than three years and mandated their participation in JSA as a condition for continued receipt of UI benefits. In contrast, the Texas demonstration targeted voluntary participants in select local JTPA Title III programs.
offered training on top of JSA had no greater effect on outcomes than the JSA-only treatments. Based largely on these findings, Congress mandated that state UI agencies create Worker Profiling Reemployment Services (WPRS) systems, to identify unemployment insurance recipients likely to face long unemployment spells (based on a statistical recipient “profiling” model). WPRS also directed UI recipients to mandatory reemployment services as a condition of continued benefit payments.

**Post-1995 Research**

In the 1990s, DOL continued to test JSA’s effects on dislocated workers. These efforts included an extended demonstration of a mandatory JSA intervention for profiled UI recipients (Decker et al. 2000) as well as a large-scale evaluation of the WPRS program shortly after its implementation (Dickinson et al. 1997). These studies confirmed findings from the earlier demonstrations showing that mandatory reemployment services provided to UI recipients likely to face long unemployment spells speeded their reemployment. Both studies also suggested that a customized approach to JSA, where some participants receive less intensive services and others receive more, could generate impacts similar to those resulting from a consistent, one-size-fits-all approach. A similar study in Kentucky confirmed the efficacy of WPRS-mandated JSA services, with somewhat larger estimated impacts (Black et al. 2005).

In contrast to the substantial body of evidence on JSA’s effects for dislocated workers, the effects of more intensive classroom training or OJT have not been fully tested for this group using an experimental design. In the mid-1990s, DOL initiated an experimental evaluation of dislocated workers served under Title III of JTPA (EDWAA). However, the evaluation was abandoned once WIA replaced JTPA.
Despite the lack of experimental evidence on training for dislocated workers, a number of nonexperimental studies of this group may be relevant to WIA. For example, Decker and Corson (1995) examined the effects of training provided to Trade Adjustment Assistance (TAA) program participants. This study of the TAA program, which serves workers who lose their jobs as a result of increased import competition, was based on a national sample of TAA trainees in the late 1980s. Estimates of the impact of TAA training on earnings in the 12th quarter after participants’ initial UI claims was positive, at least for a post-1988 sample of TAA trainees, but small relative to the size of the training investment and not statistically significant (see Table 2). Based on these findings the authors concluded that TAA did not substantially increase earnings of TAA trainees, at least in the first three years after the initial UI claim. In contrast, Jacobson, LaLonde, and Sullivan (2005) found a positive effect of community college on the earnings of older dislocated workers, based on a sample from Washington State in the early 1990s. Their estimates imply that one academic year of community college retraining raised earnings of men 35 or older by 7 percent and earnings of women 35 or older by 10 percent, translating into substantial net social benefits in both cases, as shown in Table 2. Although these results do not relate directly to the effects of any government intervention, they may provide guidance for how dislocated workers can be served effectively. Both the Decker and Corson (1995) and Jacobson, LaLonde, and Sullivan (2005) studies attempt to address a number of challenges common to nonexperimental research on dislocated workers, including how to treat trainees who enter training only after a substantial unemployment spell. Both studies also demonstrate that earnings

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9 For the average TAA trainee, training lasted substantially longer than a year, and average training expenditures under TAA at the time were substantially higher than under JTPA.
impact estimates can vary substantially, depending on the methods or specifications used to address these challenges.

More recently, the studies of WIA conducted by Heinrich et al. (2009) and Hollenbeck et al. (2005, 2009) have directly estimated WIA’s effects on dislocated workers. Their findings provide limited evidence at best that either WIA services overall or WIA training efforts are effective for this group. Impacts presented by Heinrich et al. and reported in Table 2 imply that WIA reduces earnings in the early quarters after program entry, but participants catch up to their nonparticipant counterparts, eventually achieving average quarterly earnings about $400 higher than nonparticipants three to four years after program entry. However, concerns about the estimation methodology lead the authors to discount the positive impact estimates and conclude that gains from participation are, at best, very modest, even three to four years after entry. Table 2 also shows that evidence of a marginal effect of training on dislocated workers is particularly disappointing, with quarterly estimated earnings impacts consistently negative or near zero through the four-year post-entry observation period.

In contrast to Heinrich et al., Hollenbeck et al. find positive and strong impacts of WIA overall on dislocated workers, averaging $1,137 per quarter for women and $1,010 per quarter for men. Not only are the impacts strong and positive, but they occur immediately, with the largest effects seen in the initial quarters of observation. The stark difference between these estimates and the Heinrich et al. estimates is probably attributable to methodological differences. As explained previously, the use by Hollenbeck et al. of the exit point to begin the observation period effectively ignores any foregone earnings during the period of program participation. Foregone earnings might be particularly high for dislocated workers, since they often have a stable work background with relatively high earnings. Hollenbeck (2009) shows that once
foregone earnings and other program costs are taken into account, WIA generates a large net loss for society of -$8,148 per participant when it is targeted to dislocated workers (Table 2).

4. Evidence on Individual Training Accounts and Other Training Voucher Programs

A key component of WIA is the use of Individual Training Accounts (ITAs), a form of training vouchers, to fund training. For many years, DOL and local workforce investment agencies have experimented with using vouchers to fund training. Under JTPA, many local workforce investment areas were already testing vouchers. For example, when Eastern Airlines went bankrupt in 1991 and laid off about 13,000 workers, the Atlanta Regional Commission could not accommodate all workers who needed training, so it issued vouchers that participants could use to purchase training themselves. A study of nine sites that used vouchers for training under JTPA found that eight managed the system through the use of a “constrained-choice” voucher model, in which the local workforce agency screened providers, limited occupational choices, provided assessments and counseling on training choices, and retained authority to reject a participant’s training choice. Administrators in these sites felt that with a “pure” voucher model, absent assessment or restrictions on training choices, some participants would make poor training choices and waste resources. In contrast, the ninth site—the Michigan Thumb Area Employment and Training Consortium—granted customers broader choices, effectively giving them a checking account that they could use to purchase education, training, or support services.

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10 D’Amico et al. (2001); Trutko and Barnow (1999).
11 Trutko and Barnow (1999).
In anticipation of WIA, DOL sponsored the Career Management Account demonstration in the mid-1990s to test the feasibility of using vouchers to provide training for dislocated workers. Most of the 13 agencies in the demonstration chose to manage their vouchers in a manner resembling the “constrained-choice” model described earlier. Findings showed that vouchers were a feasible way to provide training, likely to work just as well as a contracted-training system, and led to more satisfied customers and staff.\footnote{12 Public Policy Associates (1999).}

In 1998, the WIA legislation incorporated training vouchers to empower customers to choose their own training and training providers. Under JTPA, workforce agencies typically contracted with providers for training slots and then directed customers who needed training to these providers. In contrast, WIA customers who need training receive a voucher or ITA and can choose and pay for their program, subject to limitations states and local workforce agencies establish.

WIA gives states and local workforce agencies considerable flexibility in implementing ITAs. It requires only that ITAs support training supplied by a provider on a state’s eligible training provider (ETP) list and that training be for an occupation considered “in demand,” as defined by states and local workforce agencies. A study of the early implementation of ITAs (D’Amico and Salzman 2004) found that most local workforce agencies chose an ITA model in which counselors guided investigation of training options, but customers made final training decisions. The study also found that the ETP list was a critical tool for informing customer decisions; at the same time, it gave states control over determining acceptable providers. The study points out the natural tension between these two objectives—controlling provider access to
WIA requires excluding some providers from the list, but informing customers requires including enough providers for the list to be useful.

DOL launched the ITA Experiment in 1999 to provide states and local workforce agencies with a systematic assessment of alternative approaches for structuring and administering ITAs, and for estimating effects of different approaches. The experiment randomly assigned 8,000 training-eligible WIA customers in eight sites to one of three ITA approaches. The approaches varied according to (1) how intense required counseling was (if any was required); (2) whether counselors could reject a customer’s choice; and (3) whether the ITA amount was fixed or set by the counselor, as shown in Table 3. The approaches tested were:

- **Approach 1: structured customer choice.** This most directive approach required customers to receive intensive counseling, and counselors had considerable discretion to customize the amount of the ITA investment. On one hand, counselors were expected to constrain customers by steering them to training with a high expected return, and they could reject customers’ choices that did not fit this criterion. On the other hand, counselors also had much greater discretion to set higher ITA amounts (up to a maximum of $8,000 in most sites) if they felt expensive training was a sound investment for certain customers.

- **Approach 2: guided customer choice.** This approach, similar to what most workforce agencies adopted in the transition to WIA, involved mandatory counseling. However, counseling was less intensive than under the preceding approach. Counselors could not reject customers’ choices if the chosen provider was on the state’s approved list. The amount of the ITA award was fixed at $3,000 to $5,000, depending on the site.

- **Approach 3: maximum customer choice.** This approach, the least structured of the three, did not require customers to participate in counseling after being found eligible for WIA-funded training, but they could request and receive it. Customers received a fixed ITA award of $3,000 to $5,000, depending on the site (as in the preceding approach). Counselors could not reject customers’ choices if the provider was on the state’s approved list.

These three approaches reflected the spectrum of voucher models emerging in the early days of WIA, with the second approach most similar to the informed-choice model most sites
used in the transition to WIA. To make the experiment as informative as possible, the structured and maximum customer choice approaches encouraged sites to “push the envelope” in their offerings—to adopt models that most sites would not have adopted on their own.

These alternative ITA approaches generated different levels of participation in WIA training, with greater service requirements leading to both lower participation rates and slower entry into training. Customers assigned to the least restrictive model, maximum customer choice, were significantly more likely to attend an ITA orientation and to eventually use an ITA, as shown in Table 4. Attendance rates for this approach were 5 to 7 percentage points higher than for the other two approaches. These findings suggest that the mandatory counseling associated with the other two approaches deterred some customers from pursuing an ITA. Furthermore, analysis of the timing of training reveals that customers with maximum choice entered training about two weeks sooner, on average, than those assigned to the more directive approaches (not shown in table).

Although maximum choice customers were more likely to pursue an ITA, they were much less likely to participate in counseling after the orientation. Post-orientation counseling was voluntary for these customers, and only four percent chose to take advantage of the counseling offered. Nonetheless, there is no evidence that these customers made poor training or employment choices. In fact, they chose occupations, training courses, and training providers that were quite similar to those selected by customers assigned to the other two approaches, who routinely received counseling prior to entering training.

Although the structured choice approach—Approach 1—was the most directive, these customers’ training choices were similar to those of customers in the other approaches, largely

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13 McConnell et al. (2006).
because counselors were reluctant to be directive of any customers. Despite the guidance given to counselors regarding Approach 1, counselors tended to defer to customer preferences, failed to steer customers to high-return training, and rarely denied training. They also found it difficult to constrain expenditures. Despite guidance to counselors that average training expenditures should be similar across approaches, counselors awarded much higher ITA amounts to structured choice customers—$4,625 per trainee—than to customers assigned to the other approaches—$2,861 and $2,888 per trainee, respectively (Table 4). They also reported that being directive was not in the best interest of customers and that they had insufficient information on which to judge customers’ choices.

Although the ITA take-up rate was higher under maximum choice than under the other approaches, the rate of training participation was similar—approximately two-thirds of customers assigned to each approach participated in training during the 15-month post-assignment follow-up period. As a result, the degree to which the customers assigned to the more directive approaches were less likely to pursue an ITA was offset by their finding other ways to support participation in training. Despite the similarity across approaches in training rates, the average duration of training was longer among trainees in Approaches 1 and 3 than in Approach 2.

The relative effects of the ITA approaches on earnings and UI benefit receipt during the 15-month follow period were modest. Individuals assigned to structured choice, the most directive model, had somewhat higher total earnings during the post-assignment follow up period than individuals assigned to maximum choice, the least directive model. The difference in earnings between these groups is $1,308, as is shown in Table 4, which represents 8 percent of the mean earnings for the maximum choice customers. Average earnings for guided choice customers fell
between averages for the other two approaches. Average UI benefits received were lowest for this group, and the difference between the Approach 2 and 3 groups was $217, on average, and statistically significant.

Finally, after accounting for the relative costs as well as the relative benefits of the three approaches, McConnell et al. (2006) report that estimates of net benefits were highest for guided choice and lowest for maximum choice, but the differences are not statistically significant. The findings provide no strong evidence that society would either benefit or be harmed by a general move from Approach 2 to either Approach 1 or Approach 3. However, both switches would be costly from the government perspective. The switch from guided choice to structured choice would increase costs because customers receive much larger ITAs on average. Maximum choice would also increase costs relative to guided choice, because the government provides ITAs to a higher proportion of customers and pays out more in UI benefits under the former.\textsuperscript{14}

To explore further the use of vouchers, DOL launched the Personal Reemployment Account (PRA) Demonstration in 2004 in seven states. PRAs were vouchers designed to provide an incentive to reemployment and increase customer choice by removing counseling requirements and restrictions on choice of providers. They were offered to UI recipients as an alternative to participation in WIA. PRAs differed from ITAs in six ways: (1) they were offered only to UI recipients likely to exhaust their benefits (rather than to dislocated and adult workers); (2) they were limited to $3,000; (3) they could be used to pay for intensive and supportive services\textsuperscript{15} as

\textsuperscript{14} DOL has initiated a long-term follow-up study, being conducted by Mathematica, of the ITA experiment. The study is looking at outcomes six to seven years after random assignment (Perez-Johnson, et al. 2008)

\textsuperscript{15} Supportive services can include (1) financial assistance needed to meet a condition of employment or generate a specific job offer, (2) logistical support for training, intensive services, or job search (for example, child care and transportation costs), and (3) general expenses in support of job search activities. In the demonstration, all states allowed PRA expenditures in categories (1) and (2), but only some states allowed PRA expenditures in category (3).
well as for training; (4) they could be used to pay providers that were not on the ETP list; (5) customers could receive 60 percent of their unused PRA balance as a reemployment bonus if they became reemployed in their first 13 weeks of UI receipt; and (6) the full amount of the account was fully obligated for the customer for one year (in contrast with ITAs, from which specific obligations are based on training commitments).

Three findings from the PRA demonstration are relevant to WIA.\textsuperscript{16} First, echoing the findings of the ITA Experiment, few customers used their PRAs to pay for counseling or other intensive services. Second, many customers chose to use their PRAs to pay for supportive services—in five of the seven sites, customers spent more on supportive services than on any other service. Third, sites found it challenging to satisfy the requirement that the full PRA amount be obligated for one year, given that many accounts were inactive for long periods.

Building on lessons from these previous generations of training vouchers, former President Bush proposed in 2006 a new version of the training voucher—Career Advancement Accounts (CAAs). Like the other training voucher initiatives, CAAs aimed to expand customer choice and streamline the delivery of training services, freeing up resources to meet the growing education and training needs of the workforce. Eight states received CAA demonstration grants in 2006 and piloted CAAs (see Rosenberg et al. 2007 for an assessment of the early experiences in four states). In partnership with the U.S. Department of Defense, DOL also offered CAAs to the spouses of military personnel in 18 military installations in eight states (Needels and Zaveri 2009).

\textbf{5. Conclusion}

\textsuperscript{16} Kirby (2006).
As WIA has passed the 10-year mark and faces the need for re-authorization, now is a good time to review the research related to the program and think about the implications for the future of WIA and workforce development policy. The findings from studies of WIA implementation suggest that the program has largely been successful in meeting many of its key process objectives, such as greater service coordination and customer empowerment. But meeting these objectives was neither easy nor quick, and at least in the early days of WIA, there were challenges to accomplishing the programs objectives that had not yet been fully resolved. Presumably state and local agencies have continued to make progress towards the WIA objectives since the early implementations studies. For example, the potential trend towards greater use of sectoral workforce development programs, in which workforce development programs support training opportunities by operating on both the supply and demand sides of the labor market, may imply that local workforce agencies are more engaged with the private sector now than they were in the early days of WIA.17 Hence, further analysis would be useful, depending on the timing of re-authorization and how much the re-authorized program would differ from the current program. It would be particularly useful to have updated studies of WIA operations prior to any major overhaul of the system.

Although DOL has initiated a new evaluation of WIA that will be based on an experimental design, the studies of WIA to date have been based exclusively on nonexperimental methods. The findings from these studies imply that for adult participants, WIA services generate an increase in earnings and employment for both women and men, and the effects tend to persist for at least a few years. These findings are broadly consistent with the findings from the

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17 Glover and King (2010) describe the expanding role of sectoral approaches in the workforce development system in recent years.
experimental study of WIA’s predecessor, JTPA. In contrast, the results for dislocated workers are less promising—researchers either find little evidence that WIA services or WIA training substantially increase earnings of dislocated workers, at least in the first four years after program entry (Heinrich et al 2009), or they find that earnings increases due to WIA are far smaller than the combination of the opportunity costs and direct costs associated with WIA services, at least by 10 quarters after program exit (Hollenbeck 2009).

Although these nonexperimental studies of WIA are carefully executed with state-of-the-art methods, it’s not clear whether they can have fully addressed well-known concerns about selection bias in the absence of random assignment to WIA. Furthermore, the data available for these studies have various limitations that constrain the conclusions that can be drawn based on the findings. Hence, it’s too early to declare WIA a success for adults or a likely failure for dislocated workers based on the existing literature. The recently initiated WIA evaluation will address most of these issues by applying experimental methods to a nationally representative sample of participants to assess the program effects.

For one aspect of WIA—the Individual Training Accounts—we already have a set of findings that are based on an experimental assessment of different approaches to structuring and administering ITAs. Most local agencies have gravitated towards what we call a “guided customer choice” model, with mandatory training counseling but ultimately customer-driven training choices. The experiment tested both more and less counseling-prescriptive alternatives to the “guided choice” model. The findings from the experiment show that despite the flexibility allowed to local areas in how closely they can manage training decisions through ITAs, local staff are reluctant to be prescriptive in guiding training decisions even when they are given the clear authority. Furthermore, when limits on ITA amounts are eased and counselors are given
the authority to customize the amount of training support made available to each participant, counselors tend to be generous in their awards across the board, and the amount of the average ITAs increases substantially. Counselors are particularly reluctant to deny an ITA to any eligible participant based on their training choice. At the other end of the spectrum of prescriptiveness, when counseling requirements are removed and participants are free to make training decisions on their own, very few participants seek counseling to guide them. At the same time, since these participants face fewer requirements, they are also more likely to pursue and ultimately receive an ITA.

Overall, the findings from the ITA experiment suggest that in the current WIA context, deviations from the “guided choice” model of providing ITAs would generate, at most, modest changes in earnings and other participant outcomes (at least when measured over 15 months after training eligibility determination), while at the same time the alternatives would generate higher administrative and training costs for local areas. Hence, the evidence supports the widespread use of the “guided choice” model by local agencies in the current environment. If there is a strong desire among policymakers for the workforce development system to be more or less prescriptive in guiding the use of ITAs, policymakers will need to make it an explicit goal of the system rather than simply provide the flexibility that allows for it at the local level, as is done under WIA.
<table>
<thead>
<tr>
<th>Program</th>
<th>Source</th>
<th>Method (E = experimental)</th>
<th>Population or Service Strategy</th>
<th>Estimated Mean Effects or Range of Effects (per enrollee unless noted)</th>
<th>Estimated Social Net Benefits per Enrollee</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Training Partnership Act (JTPA)</strong></td>
<td>Bloom et al. (1997)</td>
<td>E</td>
<td>Women</td>
<td>$2,738*** total earnings in 10 quarters after assignment (15 percent of control group mean)</td>
<td>$763</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Men</td>
<td>$2,383* total earnings in 10 quarters after assignment (8 percent)</td>
<td>$781</td>
</tr>
<tr>
<td></td>
<td><strong>By Service Strategy:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Classroom Training:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td></td>
<td></td>
<td>$939 total earnings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td></td>
<td></td>
<td>$1,918 total earnings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OJT/Job Search Assistance:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td></td>
<td></td>
<td>$3,416** total earnings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td></td>
<td></td>
<td>$2,109 total earnings</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Other Services:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>E</td>
<td>Women</td>
<td>0.0 to 5.3 percentage employed per quarter over 6 quarters after assignment (3.5 percent employed anytime in 6 quarters)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>E</td>
<td>Men</td>
<td>1.9 to 8.9 percent employed per quarter over 6 quarters after assignment (4.8 percent employed anytime in 6 quarters)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>GAO (1996)</strong></td>
<td>E</td>
<td>Women</td>
<td>$4,021 total earnings per assignee over 5 to 6 years after assignment; 1.3 to 3.1 percent employed per year over 5 years after year of assignment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Men</td>
<td>$3,996 total earnings per assignee over 5 to 6 years after assignment; 0.3 to 3.7 percent employed per year over 5 years after year of assignment</td>
<td></td>
</tr>
</tbody>
</table>
### Table 1 (continued)

<table>
<thead>
<tr>
<th>Program</th>
<th>Source</th>
<th>Method (E = experimental)</th>
<th>Population or Service Strategy</th>
<th>Estimated Mean Effects or Range of Effects (per enrollee unless noted)</th>
<th>Estimated Social Net Benefits per Enrollee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce Investment Act (WIA)</td>
<td>Heinrich et al. (2009)</td>
<td>N</td>
<td><strong>WIA Overall:</strong></td>
<td>Women</td>
<td>$482*** to $638*** per quarter for 16 quarters post-entry; 5.0** to 13.1** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Men</td>
<td>$320*** to $692*** per quarter for 16 quarters post-entry; 4.9** to 11.8** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>WIA Core/Intensive:</strong></td>
<td>Women</td>
<td>$216*** to $575*** per quarter; 3.5** to 14.6** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Men</td>
<td>$148* to $673*** per quarter; 4.6** to 12.3** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>WIA Training vs. WIA Core/Intensive:</strong></td>
<td>Women</td>
<td>-$223*** to $928*** per quarter; -5.6** to 9.5** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Men</td>
<td>$194** to $1,301** per quarter; -2.0** to 13.5** percent employed per quarter</td>
</tr>
<tr>
<td>Hollenbeck et al. (2005)</td>
<td>N</td>
<td><strong>WIA Overall:</strong></td>
<td>Women</td>
<td>$887*** per quarter for 8 quarters post-exit; 10.6*** percent of time employed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Men</td>
<td>$773*** per quarter for 8 quarters post-exit; 6.2*** percent of time employed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>WIA Trainees vs. WIA &amp; ES Non-Trainees:</strong></td>
<td>Women</td>
<td>$874*** per quarter post-exit; 6.5*** percent of time employed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Men</td>
<td>$629*** per quarter post-exit; 2.1*** percent of time employed</td>
<td></td>
</tr>
<tr>
<td>Hollenbeck (2009)b</td>
<td>N</td>
<td>Adults</td>
<td></td>
<td></td>
<td>$459*** per quarter post-exit</td>
</tr>
</tbody>
</table>

Note: Earnings impacts are adjusted to 2005 dollars.

*The authors do not report significance tests for the estimates presented here

bNumbers presented here are based on average estimates for Hollenbeck’s studies 2 and 4 (see his Tables 4 and 5).

**/***Estimate is significantly different from zero at the 0.10/0.05/0.01 level in a two-tailed test.
<table>
<thead>
<tr>
<th>Program</th>
<th>Source</th>
<th>Method (E = experimental)</th>
<th>Population or Service Strategy</th>
<th>Estimated Mean Effects or Range of Effects (per enrollee unless noted)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>All Trainees, post-1988</td>
<td>$527 in quarter 12 after initial unemployment insurance claim</td>
</tr>
<tr>
<td>Community College</td>
<td>Jacobson, LaLonde, and Sullivan (2005)</td>
<td>N</td>
<td>Men 35 or older</td>
<td>7 percent</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Women 35 or older</td>
<td>10 percent</td>
</tr>
<tr>
<td>Workforce Investment Act (WIA)</td>
<td>Heinrich et al. (2009)</td>
<td>N</td>
<td><strong>WIA Overall:</strong></td>
<td><strong>WIA Overall:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dislocated Women</td>
<td>-$226*** to $417*** per quarter for 16 quarters post-entry; -2.0** to 7.8** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dislocated Men</td>
<td>-$199*** to $363*** per quarter for 10 quarters post-entry; 0.2* to 6.3** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>WIA Core/Intensive:</strong></td>
<td><strong>WIA Core/Intensive:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dislocated Women</td>
<td>-$3 to $482*** per quarter; 1.5** to 7.8** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dislocated Men</td>
<td>-$28 to $364*** per quarter; 2.4** to 6.1** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>WIA Training vs. WIA Core/Intensive:</strong></td>
<td><strong>WIA Training vs. WIA Core/Intensive:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dislocated Women</td>
<td>-$1,126*** to $69 per quarter; -14.0** to 1.9** percent employed per quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dislocated Men</td>
<td>-$828*** to -93 per quarter; -9.8** to 0 percent employed per quarter</td>
</tr>
</tbody>
</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Program</th>
<th>Source</th>
<th>Method (E = experimental)</th>
<th>Population or Service Strategy</th>
<th>Estimated Mean Effects or Range of Effects (per enrollee unless noted)</th>
<th>Estimated Social Net Benefits per Enrollee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hollenbeck et al. (2005)</td>
<td>N</td>
<td>WIA Overall:</td>
<td>Dislocated Women</td>
<td>$1,137*** per quarter for 8 quarters post-exit; 15.2*** percent of time employed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dislocated Men</td>
<td>$1,010*** per quarter for 8 quarters post-exit; 11.8*** percent of time employed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>WIA Overall:</td>
<td>Dislocated Women</td>
<td>$476*** per quarter post-exit; 7.1*** percent of time employed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dislocated Men</td>
<td>$403*** per quarter post-exit; 5.0*** percent of time employed</td>
<td></td>
</tr>
<tr>
<td>Hollenbeck (2009) b</td>
<td>N</td>
<td>Dislocated Workers</td>
<td>$541*** per quarter post-exit</td>
<td>-$8,148</td>
<td></td>
</tr>
</tbody>
</table>

Note: Earnings impacts are adjusted to 2005 dollars.

a The authors do not report significance tests for the estimates presented here.

b Numbers shown here are based on average estimates for Hollenbeck’s studies 2 and 4 (see his Tables 4 and 5).

**/***Estimate is significantly different from zero at the 0.10/0.05/0.01 level in a two-tailed test.
Table 3

The Three Approaches Tested in the ITA Experiment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Award amount</td>
<td>Customized</td>
<td>Fixed</td>
<td>Fixed</td>
</tr>
<tr>
<td>Counseling</td>
<td>Mandatory, most intensive</td>
<td>Mandatory, moderate intensity</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Could counselors reject</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>customers' program choices?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4
Summary of Estimated Relative Effects in the ITA Experiment

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Control Group Means</th>
<th>Estimated Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attended Orientation</td>
<td>69%</td>
<td>67%</td>
</tr>
<tr>
<td>Received Counseling Beyond Orientation</td>
<td>66%</td>
<td>59%</td>
</tr>
<tr>
<td>ITA Take-up Rate</td>
<td>59%</td>
<td>58%</td>
</tr>
<tr>
<td>Average ITA Award (among recipients)</td>
<td>$4,625</td>
<td>$2,861</td>
</tr>
<tr>
<td>Training Participation</td>
<td>64%</td>
<td>64%</td>
</tr>
<tr>
<td>Weeks of Training</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Earnings and Benefits:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earnings in Follow-up Period (15 months)</td>
<td>$17,032</td>
<td>$16,464</td>
</tr>
<tr>
<td>UI Benefits Received</td>
<td>$3,412</td>
<td>$3,266</td>
</tr>
<tr>
<td>Relative Net Social Benefits</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: McConnell et al. (2006)

*/**/***Estimate is significantly different from zero at the 0.10/0.05/0.01 level in a two-tailed test.
References


