

## Training: A Targeted Policy Proposal

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This paper proposes a new training program meant to address some of the labor market impacts of the Great Recession. We see this program as filling an unmet need and as a constructive role for government action and an appropriate use of public resources. Our proposal is motivated by the idea that training helps to improve skills and incomes, but it works better for some people than for others. A key focus is on improving the human capital of people with below-basic skills but evidence of motivation, including substantial labor force attachment. We look to help the reliable but unskilled janitor or garage attendant gain the skills to become, say, an MRI technician. There are already considerable incentives for this to happen—after all, an MRI technician earns more than a janitor. But there are also substantial obstacles, notably financial ones, and we look to help overcome those.

This proposal will not help everyone dislocated in the recession. Workers with higher skills are more likely to find new jobs on their own but at a substantial earnings loss, especially in the case of workers who had considerable seniority at their previous employer. This is an important phenomenon given that the recession hit especially hard at manufacturing and at construction trades where there is likely to be firm- and industry-specific knowledge that would be lost for workers switching occupations or industries. On the other hand, our proposal would be helpful for unskilled construction workers. This proposal is thus but one piece of a policy response to the recession.

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In an era of limited government resources, we look to focus training dollars in a way that will have a meaningful and cost-effective impact in improving the lifetime incomes of those receiving training. The targeted groups are people with low skills and incomes but substantial motivation and evidence that they will benefit from training such as consistent labor force attachment. Training support is meant to provide an opportunity for people to garner the basic skills needed to move up the occupational ladder.

People with low skills already have substantial incentives to get training, since acquiring new skills is a pathway to higher incomes. Many low-skilled workers, however, face substantial obstacles to utilizing training, including the potential cost of training. For people of modest financial means and limited access to credit, even the cost of community college could be an insurmountable obstacle, as could the cost of paying for others to care for dependents while taking training. Moreover, many workers in low-skill occupations are not likely to receive on-the-job training—a garage attendant or janitor, for example, might have the motivation to consistently show up to work and the non-cognitive and social skills to perform at a high level but still never have the opportunity to advance. A lump sum of training funds could allow such a worker to take remedial courses and learn the skills needed to move up the occupational ladder. Training could help allow a garage attendant or janitor to become an MRI technician or home health care aide.

The empirical training literature suggests as well that motivation is a key determinant of the success of training programs. The second component of our proposal thus targets groups such as single mothers who have considerable motivation to move up.

Our proposal would extend training support to low-skilled people who are currently employed. Some \$18 billion of federal money is now spent on a welter of programs related to training and job search, but workers are generally not eligible for federal training assistance while they remain employed. We turn this on its head and make evidence of reliable employment—of strong labor force attachment, in the jargon—a qualifier for assistance. This thus serves to increase skills for those taking it up and as an incentive for employment for those not currently eligible.

The delivery of training resources in our proposal would provide recipients with flexibility to make choices about how best to utilize training funds. A lump sum amount of training resources—a voucher—will provide opportunity for workers with low skills to increase their basic skills and move into higher paying occupations.

A further component of our proposal is to accompany federal training resources with rigorous evaluation to determine what works and what does not work. One of the significant limitations of current training programs is the lack of continual evaluative research designed to identify programs that are most effective and to focus training resources on groups that stand to receive the greatest benefits from training. A key component of our proposal is for continual evaluation of training programs. We would require states to provide administrative data on training participants matched to data on unemployment insurance wage records, and comparable data on individuals receiving services at state employment security offices (job exchange services provided through Wagner-Peyser legislation). These data efforts, along with increased budgetary resources to fund independent evaluation research using the administrative data, would help policymakers identify promising areas in which to expand training efforts (and programs that are not working and that should be reduced or eliminated).

A shortcoming in government spending on evaluation and in much of the economic literature on program evaluation is the focus on average cost-benefit analysis. This provides information on how a program works for the average person, but it is often of more interest to gauge the marginal impact—the effect of a training dollar on the next person to utilize the scheme rather than on the average. Collecting increased data would allow an enhanced focus on marginal evaluation that would help guide the targeting of training resources going forward.

This paper highlights some of the labor market impacts of the recession, reviews the economic literature on training to identify the characteristics of people who are likely to most benefit from training, and then puts forward a training proposal to help these groups and an evaluation agenda.

## II. Labor Market Impacts of the Great Recession

The Great Recession has left a vastly changed labor market in its wake, with massive job losses, lingering high unemployment, and a huge increase in the number of people experiencing prolonged spells of unemployment. With the economic recovery looking to be shallow, the pace of the job market rebound is likely to be insufficiently vigorous over the next several years to reemploy the millions of workers who lost jobs in this recession. This cyclical shock comes on top of long-standing structural changes in the economy, including the relative decline of manufacturing employment and the impact of technology and other factors leading to a bias in favor of workers with relatively high skills.

Among the salient labor market aspects of the Great Recession are:

1. Massive job loss. Over 8.8 million private sector jobs were lost on net from the employment peak in January 2008 to the employment trough in February 2010, representing a loss of 7.6 percent of the 115.6 million private sector jobs in January 2008.
2. Slow job market recovery, with a lingering high unemployment rate and a slow rebound in the hiring rate. An average of 139,000 private sector jobs per month have been added over the 13 months of rebound through March 2011—compared to an average monthly loss of 353,000 during the 25 prior months. At this pace, it will take over five years to regain the employment peak.
3. Decline in labor force participation (and together with the unemployment rate, thus a marked decrease in the employment ratio).
4. Enormous rise in long term unemployment, with more than 6 million people unemployed for more than 26 weeks starting from early 2010. This represents 4 percent of the labor force unemployed for more than half a year—compared to a peak of 2.5 percent of the labor force in long-term unemployment in 1982 and less than 2 percent in the recessions associated with the 1990-92 and 2000-2002 job market slowdowns.

5. The increase in the unemployment rate has been especially marked for people with less than a high school diploma (and 25 years or older)—reaching nearly 16 percent in late 2010 and still at nearly 14 percent in March 2011. The unemployment spike for these low-skilled workers has been much sharper than for those with more education (even though the unemployment rate for all workers rose by more in this cycle, including for people with a college degree).
6. The industries of greatest job loss match up with the labor market impacts of the Great Recession hitting those with low education, with notable employment losses in construction, manufacturing, retail, and trade-transport-utilities. Construction employment has declined by nearly two million since January 2008, representing a loss of 26 percent of employment at that time. Manufacturing employment fell by over 2.2 million from January 2008 to February 2010—a pace of more than 90,000 jobs lost per month on average, or 16.5 percent of January 2008 manufacturing employment (and a recovery since February of only 15,800 manufacturing jobs per month on average). There has also been a sizeable decline of 1.5 million jobs in employment in business and professional services, though the recovery in this sector has been much stronger since early 2010 with more than 500,000 jobs already added in the past 13 months.
7. The January 2010 worker displacement survey covering 2007 to 2009 shows a considerable decline in the reemployment rate for displaced workers compared to the previous survey (which covered years of strong employment growth), and an increase in the extent of earnings losses for reemployed workers.
8. Displaced manufacturing workers are least likely to be reemployed (out of any industry). Workers in production occupations are similarly least likely to be reemployed looking across occupations.

The rise in long-term unemployment by itself suggests an important role for training policy, since displaced workers are likely to find themselves sitting on the sidelines for an extended

period while labor demand remains weak. The indirect cost of training in terms of lost earnings is thus likely to be smaller than in the context of a stronger job market.

The focus of the downturn in the construction sector, notably in residential construction, hit especially hard at men with modest educational attainment and relatively little technology-related skills. Construction workers displaced by the housing bust are likely to find that their skills are not in demand even in the recovery, because the overhang of vacant and foreclosed homes means that residential construction will continue to lag. Manufacturing employment has begun to recover somewhat, but many manufacturing workers are likely to find that gains in productivity mean that hiring in the sector lags behind the demand recovery. In addition, the future earnings of displaced manufacturing and construction workers forced to shift into other occupations is not likely to come close to what they had before. Their earnings before the recession were on average greater than would be expected from their skills—they earned an industry premium—and they have now lost this. Adjustment into low-skilled occupations is likely to be especially demoralizing for these workers.

### **III. Overview of Existing Training Programs for Adult Workers**

A variety of programs funded by both the federal and state governments provide job training for adult workers (major programs are summarized in Table 1, below). While funding for these programs comes from several different sources, many of these programs provide similar sets of services and often refer participants to each other, making it difficult to identify exactly how many unique individuals receive government funded training.<sup>2</sup>

The main federal government job training program is the Workforce Investment Act or WIA program, administered by the Department of Labor (DOL). Two parts of WIA provide training for adults: the adult worker program, which provides training services to individuals over 18 who have been classified as economically disadvantaged; and the dislocated worker program, which provides services to workers who have lost their job through no fault of their

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<sup>2</sup> GAO (2011) details the overlap among federal employment and training programs.

own.<sup>3</sup> In program year (PY) 2008 (July 1, 2008-June 30, 2009), WIA received \$3.9 billion in direct funding and \$2.9 billion in supplemental funding as part of the American Recovery and Reemployment Act (ARRA) for a total of \$6.8 billion (DOL, 2009a). In PY 2008, 1.4 million participants successfully exited the WIA program, meaning that approximately \$4,900 was spent for every person who successfully exited the program (DOL, 2009a).<sup>4</sup>

**Table 1: Major Federal Training Programs**

Program, year of information	Total Cost	Participants	Cost/participant
Workforce Investment Act (WIA), 2008	\$6.8 billion	1.4 million	\$4,900
Trade Adjustment Assistance (TAA), 2010	\$975 million	234,944	\$4,200
Employment Services (ES), 2008	\$725 million	17 million	\$42

WIA provides three types of broad services. The first is core services that include job search assistance, information about local vacancies, skill assessment and career counseling. These services are meant to be provided over a short period of time to help an unemployed worker quickly find another job. Intensive WIA services are expected to be provided over a longer period of time and include more in-depth career counseling, assistance in developing an individual employment plan, and some short-term vocational training. Finally, the third WIA category is training services, which are expected to be provided over a longer period of time, include occupational and/or vocational training, on-the-job training, and activities for skill upgrading. WIA participants typically receive money to pay for training services through an

<sup>3</sup> A third WIA program provides training to youths who have been classified as economically disadvantaged.

<sup>4</sup> The Department of Labor requires states to report on the number of participants who exit WIA and these are the only readily available data. This means that people who enter WIA but do not complete their training or people who are still in the program are not included in these numbers. Actual dollars per participants are thus likely to be lower than stated here in periods of growing participation such as program year 2008 when there are entrants who have not yet exited.

individual training account (ITA) and contract directly with an approved training provider in the community. Local community colleges are frequently the provider of training services.

The type of services a person receives is typically decided jointly by a case worker and the participant. The original conception of WIA was for participants to initially receive core services, and then intensive services if they were unable to find a job, and eventually training services if needed. DOL subsequently made clear, however, that participants can receive whatever services they and the case worker feels are appropriate. There are substantial differences across states in who receives each of these services (Heinrich et al., 2009).

A second federal government program that provides training to adult workers is the Trade Adjustment Act or TAA program. The TAA is also administered by DOL. Workers are eligible to participate in TAA after the government certifies that they lost their job as a result of foreign competition,<sup>5</sup> so participants in TAA are similar to participants in the WIA dislocated worker program. While TAA participants receive additional benefits, such as payments to supplement their unemployment insurance benefits, TAA workers receive training services quite similar to those provided under WIA. In fiscal year (FY) 2010 (October 1, 2009-September 30, 2010), approximately \$975 million was allocated to TAA and there were 234,944 TAA participants, making the cost per participant around \$4,200 (DOL, 2009b).

The federal government, in conjunction with state governments, also provides training through its Employment Security (ES) or Labor Exchange program, which is administered by DOL and funded through the Wagner-Peyser Act. Participants in ES receive short-term job search and job referral services similar to the core services provided as part of WIA. In 2009, ES spent approximately \$725 million and provided services to 17 million participants at a cost of around \$42 per participant (DOL, 2009a). As can be inferred from the modest per-participant figure, much of the cost of core services is fixed (such as computer terminals on which job seekers can search through job postings).

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<sup>5</sup> Workers at a firm are eligible for the TAA program if the Department of Labor certifies that the firm has been adversely affected by foreign trade.

One of the original goals of WIA was to make it convenient for participants to receive a variety of services, so under the auspices of WIA, states have created one-stop centers at which unemployed workers can access job search services and other assistance programs.<sup>6</sup> WIA, TAA, and ES offices are located together in most one-stop centers, and applicants can be referred to other programs depending on their characteristics and the availability of funds.

A final federal government program that provides training is the Adult Basic Education (ABE) program, which provides grants to states to administer GED programs and English language programs for immigrant workers.<sup>7</sup> Unlike the WIA, TAA and ES programs, ABE programs are administered at the federal level by the Department of Education. In FY 2010 states received \$553 million in federal dollars for ABE programs. ABE offices are also located in one-stop centers.

By far the largest amount of government funded job training is done by community colleges. In the fall of 2008 there were over 12.4 million students enrolled in community colleges nationwide, of whom 7.4 million were taking courses for credit (according to figures from the American Association of Community Colleges). According to Goldrick-Rab et al (2009), community colleges receive about \$2 billion per year in support from the federal government (aside from Pell Grants). Community colleges are also an important component of training provided through WIA and TAA since community colleges are often the entity where the actual training occurs. This means that many of the participants in WIA or TAA also show up in community college enrollment numbers.

Finally, states also fund a variety of job training programs run by private firms for their employees (often with funding from employer taxes), though there is little data collected on a regular or systematic basis about these programs.

As this brief overview of job training programs makes clear, job training in the United States is a disjoint effort funded through a variety of sources. As noted by GAO (2011), having

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<sup>6</sup> Unemployment Insurance offices are also located in one-stop centers as are offices that administer the states' welfare programs.

<sup>7</sup> States can also appropriate additional funds to ABE programs.

different programs provide essentially the same services means excess administrative costs and less efficient provision of services. One obvious way to increase efficiency is by creating a more integrated job training system. Holzer (2008a, b) discusses the U.S. training system and possible approaches to a new system including reducing the fragmentation of programs.

#### **IV. Effectiveness of Government Sponsored Training Programs**

One obvious question is whether government sponsored training programs are effective in the first place. Holzer (2008b) details the decline in funding for training programs relative to the size of the economy over the past decades (until the influx of funding through the ARRA). He relates this to the “work first” philosophy originally embedded in WIA and to what he sees as an incorrect but “widespread perception” that training has not been shown to be “cost-effective at raising future earnings of participants.” (p. 9).

While there are a number of different ways to measure and assess effectiveness, the program evaluation literature typically focuses on assessing whether the estimated benefit to the average participant (often referred to as the average treatment effect) exceeds the costs of providing the training, including both the direct cost of the program itself and the indirect cost of potential lost earnings, if any, while undertaking training. When measuring benefits, most studies focus on two outcome measures: labor market earnings and the probability of being employed after participation.

There is a large and important empirical literature on training but relatively little work done on an ongoing basis to examine the effectiveness of current job training programs, and there is substantial variability in the amount and quality of such evaluation across the various programs. Many claims about the benefits of these programs come from government-produced reports that rely on simplistic performance measures that are subject to manipulation by program administrators and that do not allow analysts to estimate the causal impact of the program (Barnow, 2011). This brief review focuses on studies that exploit

individual-level micro data and utilize a methodology and data that are appropriate for estimating the causal impact of a program.

Of the primary federal job training programs discussed above, WIA has been the subject of the most scrutiny, although unlike its predecessor program, JTPA, there has never been a random assignment evaluation of WIA.<sup>8</sup> However, there have been two meta-analyses showing that, when done correctly, results from non-experimental evaluations closely match the results from experimental analyses (see Card, Kluve and Webber, 2009 and Greenberg, Michalopoulos and Robbins, 2006).

The most rigorous evaluation of WIA to date are the studies by Heinrich et al. (2008), Hollenbeck et al. (2005) and Hollenbeck (2009). For participants in the adult worker program, Heinrich et al. find that WIA increases quarterly earnings by approximately \$400 per quarter for the 16 quarters after beginning the program. They also find that WIA increases the probability of being employed by approximately 8-10 percentage points per quarter. Given the cost of the program of around \$4,000 per participant, these estimates suggest that the benefits accruing to participants in the WIA adult program exceed the costs of the program.

Heinrich et al. find appreciably smaller benefits for participants in the WIA dislocated worker program once they take into account nonrandom selection into the program. For dislocated workers, the benefits are negative for up to 10 quarter after entry and never significantly exceed zero. The estimated increase in the probability of being employed is positive and significant toward the end of the sample period but never exceeds 3-4 percentage points. Based on these estimates, it does not appear that the benefits of the dislocated worker program exceed the costs for the average participant.

The Hollenbeck et al. (2005) and Hollenbeck (2009) studies tend to find larger effects for both the adult program and the dislocated worker program. The primary reason for the different findings lies in the data used in these studies. Heinrich et al. have data on all WIA participants starting when they enter the program and have data starting several years after

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<sup>8</sup> A randomized evaluation of WIA has been funded and is beginning to be implemented (see Bellotti et al., 2009).

the implementation of WIA. In contrast, Hollenbech et al. and Hollenbech only have data on participants who successfully exit WIA and their data covers the period shortly after WIA was implemented. This is problematic for several reasons. First, Hollenbech et al. and Hollenbech are unable to observe earnings when an individual is actively engaged in training, so they miss the opportunity cost to participants of participating in the program. These costs can be significant for the least successful participants who spend a longer time in WIA because they struggle to find a job. Second, during the period immediately after WIA was implemented, local WIA officials were actively managing their caseload in to improve their performance measures and only allowed individuals to exit WIA once they were considered a success (Decker, 2011). Finally, neither Hollenbech et al. nor Hollenbech conduct the appropriate specification tests to determine if their comparison sample is indeed comparable to their treated sample. Taken together, these factors suggest that the estimated effects in both Hollenbech et al. and Hollenbech represent upwardly biased estimates of the effect of WIA.

The most comprehensive evaluation of TAA is Decker and Colson (1995), who find that TAA training has no positive impact on participants in the three years after they first filed for unemployment insurance. These findings are comparable to the Heinrich et al. (2008) finding for WIA dislocated workers. The major drawback of the Decker and Colson study is that their data consist of TAA participants from the late 1980s and there have been important changes in TAA since then. A more recent evaluation (Reynolds and Palatucci, 2011) finds positive earnings effects for TAA participants. A major limitation of this more recent study, however, is that the authors form a comparison sample from the Current Population Survey's (CPS) dislocated workers survey. As has been extensively documented previously (i.e., Heckman, Lalonde and Smith, 1999) it is important to compare treated and untreated individuals in the same local labor market, something that is not possible given the limited geographic identifiers in the CPS. Without this detailed geographic information, the results reported in Reynolds and Palatucci are not reliable. Until better analysis is available, the results in Decker and Colson (1995) and Heinrich et al. (2008) are most reliable in suggesting that the TAA training program does not have a significant impact on participant wages.

As far as we are aware, there are no large scale systematic studies of the ES program using a methodology that allow estimation of the causal impact of the program. The only study that uses an appropriate methodology is Jacobson and Petta (2000) who study the effectiveness of the ES program using data from Oregon and Washington. Their results show that ES services lead to a reduction in the duration of employment and that the benefits associated with the reduction exceed the costs of the program (given the very low program costs this finding is not surprising). Interestingly, Jacobson and Petta find that ES services are much more effective for individuals with stronger attachments to the labor market prior to their current spell of unemployment than they are for individuals with spotty work experience prior to their current spell of unemployment.

While there have been a number of studies examining the returns to investing in a four-year college degree, there have been far fewer examining the returns to a two-year degree. Most of the studies that look at the effects of community colleges are not particularly relevant for the issue of worker training because they focus on the entire student population instead of those students who recently lost a job, and they focus on the returns to an Associate of Arts degree and not the returns to a diploma or certificate. However, it is the latter two awards that are more relevant for our purposes since these awards require a shorter investment of time and primarily provide vocational training, which is the main focus of job training programs (moreover, many participants in training at a community college will take a course or two but not complete even a certificate program). Papers that are relevant for our purposes are Jacobson, Lalonde and Sullivan (2005a, 2005b), who study the labor market returns to community college for dislocated workers, and Jepsen, Troske and Coomes (2009), who study the labor market returns to receiving a diploma or certificate. Jacobson, Lalonde and Sullivan find that a year of community college raises long-run earnings by approximately 9 percent for men and 13 percent for women. Jepsen, Troske and Coomes find that women receive almost a 40 percent increase in earnings from a diploma while men experience a more modest 18 to 20 percent return (this male-female differential is often found in the training literature). Both men and women also experience a positive increase in earnings from a certificate. Taken together, these results suggest that attending a community college may provide significant benefits to

unemployed workers. However, it is important to recognize that none of these studies examine the return to individuals who are financing their training through a program such as WIA or TAA, so it is possible that the estimated returns are higher than would be experienced by individuals participating in federally funded job training programs (this could be the case, for example, if the participants in the study represented a particularly motivated group—the ones who sought out training on their own while those sent to this training by a WIA counselor are less motivated).

The most important component of the ABE programs for our purposes is the GED program which is designed to provide individuals who did not graduate from high school (or did not graduate from high school in the United States) a certificate that is notionally equivalent to a high school diploma. There have been a number of studies examining whether the program accomplishes this goal—that is whether the return to receiving a GED is equivalent to the return from receiving a high school diploma. This research is summarized in Heckman, Humphries and Mader (2010), who show that obtaining a GED has no effect on wages once one controls for the scholastic ability of people who take the GED. Further, while GED recipients are more likely to go to college, they are unlikely to finish more than one semester. Heckman, Humphries and Mader show that while the cognitive abilities of GED recipients are similar to those of high school graduates, the GED recipients have significant noncognitive deficits relative to high school graduates, including lack of persistence, low self-esteem and a penchant for engaging in risky behavior. They conclude that it is the differences in noncognitive skills that limits the labor market success of GED recipients.

In related work, Cunha, Heckman, Lochner and Masterov (2006) discuss the importance of previous investments in human capital and noncognitive ability in determining the success of future investments in human capital. In this paper, Cunha et al. develop a model showing how current investments in human capital build on earlier investments. Without the human capital base built by earlier investments, current investments will yield a much lower return. Cunha et al. go on to show why this can account for the relatively low return to job training: the skills developed in most job training programs are simply not sufficient to overcome previous deficits

in human capital, particularly deficits in noncognitive ability. The Cuhna et al. results point out the importance of targeting limited job training dollars toward those who are likely to experience the greatest return. This is most likely individuals who are experiencing temporary difficulties in the labor market, but who have shown a strong attachment to the labor market, thereby demonstrating strong noncognitive abilities.

## **V. A Training Proposal<sup>9</sup>**

We would provide flexible training resources for workers with below-basic levels of skills but demonstrated labor market attachment such as a stable work history. Workers in jobs that do not require skills are not likely to receive on-the-job training, but the evidence of the ability to hold a job implies the presence of non-cognitive abilities and social skills. This in turn suggests that a person is likely to be “trainable” and could move up the job ladder once they gain basic quantitative and literacy skills.

Research examining the effectiveness of individual training accounts (ITA) that are part of WIA shows that vouchers are an effective way to provide training support, particularly when combined with some job counseling support and a list of approved training providers (McConnell et al., 2006). Our plan would adopt a similar structure.

We would provide an annual training benefit of \$2,000 for two years delivered as an individual training account as in the current WIA model for a total of \$4,000. This would be a one-time benefit for an individual (once per lifetime). The funds in the account could be used for approved local training providers (often community colleges). This amount compares to the \$2,713 average annual tuition and fees at a community college in 2010-2011 (from the American Association of Community Colleges 2011 Fact Sheet); participants in this program would typically continue to work at least part-time while taking up training, meaning that

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<sup>9</sup> This proposal was originally developed in the U.S. Treasury office of economic policy in early-to-mid 2007 (at which Swagel was Assistant Secretary from December 2006 to January 2009). Linda Huffman and John Worth played key roles in developing the policy proposal and much of the discussion in this section especially reflects their work (as well as in the overall proposal). The proposal was not acted upon—not surprisingly, the subsequent events of the financial crisis from August 2007 engaged full attention at the Treasury Department.

\$2,000 would likely cover the cost of an appropriate program of part-time courses. The focus would be on basic skills; this is not meant to replace Pell Grants in funding post-secondary education and the menu of approved providers and training opportunities would be explicitly linked to development of basic skills. The training account would allow for part-time and intermittent enrollment for up to five years, in recognition of the reality that many workers will find their training interrupted for life events.

Counselors at existing One-Stop Centers would assess eligibility of applicants based on documented work histories. We would require evidence of two years of recent continuous employment to qualify for this one-time benefit. Workers who are currently employed and have two years of continuous history would be eligible. Unlike most other federal training programs, workers could access these new resources while they are employed. The new training resource thus becomes in a sense a (lumpy) supplement to the earned income tax credit—lumpy in that a worker becomes eligible for the full amount of support after two years of labor force attachment. Counselors at the One-Stop centers would track participants to ensure progress, and documentation of training would be required to receive the second installment of \$2,000 in training support and to maintain access to the individual training account. These new demands on counselors at one-stop centers means that the full cost of this proposal would include additional resources for one-stop centers and counselors. Offering the new training program to one million workers each year would have an annual cost of about \$2.4 billion including \$2 billion for the vouchers and an additional 20 percent for overhead at one-stop centers.

Our proposal does not include a “funding source.” While there is considerable duplication in the existing training structure and thus likely scope for redirecting some of the existing federal spending on training, we are realistic that the existing spending including duplication is not accidental and that there are advocates for each program. It would be useful to reduce this duplication, but we do not count on that to fund the new training initiative.

Research by James Heckman and co-authors (e.g. Cunha, Heckman, Lochner and Masterov, 2006) suggests that non-cognitive ability is important for labor market success and

that human capital investment is cumulative; the success of later investment hinges on the amount of prior investment. Therefore, our plan is focused especially on younger workers who have demonstrated an attachment to the labor market, but who are unable to afford the cost of additional training. Older workers would be eligible as well, but we are realistic that it will be more difficult for older participants to continue working while taking on training. As discussed by Jacobson, LaLonde, and Sullivan (2005 a, b, c), this suggests that older workers who take up the resources could actually show better returns than the average participants because this group would include only those with a particular motivation.

The targeted group includes high school dropouts who have a history working at low wage jobs but have demonstrated evidence of steady employment. Other empirical evidence shows that women in general, and single mothers in particular, receive significant benefits from training, so we propose targeting training toward these workers as well (see Dyke et al., 2006; Heinrich, Mueser, Troske 2008). Finally, research on training programs shows that economically disadvantaged workers in general experience gains from training that typically exceed the cost of training (Heinrich, Mueser, Troske, 2008), so we would target this group as well.

## **VI. A Plan for On-going Evaluation**

As our discussion of the evaluation of current job training efforts makes clear, there has been inadequate systematic, rigorous, and on-going evaluation of existing job training programs. And what has been done has focused on estimating the benefits for the average participant when it would be especially useful to assess as well the impacts for the marginal participant, since this would provide policymakers with additional guidance about which efforts to scale up or down. The patchwork of evaluation of training programs means that there remain important holes in our knowledge of what works and what does not work when it comes to retraining adult workers. Therefore, as part of our new job training regime, we propose that a meaningful effort should be undertaken in parallel to conduct on-going evaluations of the entire training program as well as various components of the training

program. This would include the routine use of outside researchers to both assess the evaluation methodologies and to conduct independent validation studies.

Bloom, Michalopoulos and Hill (2005) compare experimental estimates of program impacts with estimates from non-experimental studies and conclude that successful non-experimental studies have several key components. First, comparison and treatment groups need to be drawn from the same economic or institutional settings. Second, outcome measures for both groups need to be comparable and come from a common source. Third, successful analyses require longitudinal data on outcome measures. Fourth, nonparametric methods should be used to choose comparison groups that are observationally similar to treatment group members.

To ensure that the appropriate data are available to researchers evaluating job training programs, we would impose several requirements on the entities administering the programs as well as on state officials. First, administrators of training programs would be required to maintain accurate data on participants including information on sex, race, educational attainment, marital status, household composition, industry of current/previous job, occupation of current/previous job, detailed geographic information, the types of training services received, and a unique identifier that can be matched to other administrative sources. With appropriately robust provisions to ensure privacy, we would provide these individual-level records to researchers.

Second, and again with robust privacy provisions, we would require state officials participating in federal training programs to provide researchers with administrative data on individuals participating in other government programs such as unemployment insurance claimants, ES participants, individuals participating in the Temporary Assistance for Needy Families program, and food stamp recipients. These data are important for selecting a comparison sample of individuals that are observationally equivalent to individuals receiving training. These data would need to contain similar information as the data on participants, including a unique identifier that allows for a link to other administrative data.

Finally, in order to obtain similar outcome measures for individuals in both the treatment and comparison samples, states will be required to provide longitudinal, individual-level, unemployment insurance wage record data that can be matched to the treatment and comparison sample data for several years prior to treatment as well as several years after treatment. The data prior to treatment will be used to ensure that treatment and comparison individuals have comparable labor market dynamics. The longitudinal post-treatment data will be used to estimate both short-run and long-run treatment effects.

At first blush—at least to non-economists—these data requirements might seem like overkill. But this is essential information to zero in on the vital questions of which training programs work and for whom. And ultimately, clear answers to these questions are needed to ensure that the most effective assistance can be given to people facing job loss and dislocation and to ensure that taxpayer dollars are used in the most effective way.

These data will allow researchers to examine both the overall benefits of the job training system on an on-going basis and assess the effectiveness of its component parts. For example, what are the benefits of the services currently provided in the ES program? How does the cost-benefit ratio of ES compare with WIA intensive services? Also, there has been no research studying the return to training at community colleges that is funded through job training programs. Further, there has been very little work examining whether the returns to training vary over the business cycle, something that would be quite useful to know since the ARRA stimulus package included a significant increase in funding for these programs. Other important research topics include estimating the effect of the job training programs on the marginal participant, as well as estimating the entire distribution of effects.

The impact the program has on the average participant is interesting for a new program or for considering shutting down an existing program. To decide whether to expand or contract a program, however, the impact of the program on the marginal participant is the relevant statistic. Knowing something about the distribution of returns shows whether there are a set of participants who receive a significant benefit from training even if the typical participant receives relatively small benefits. Such information would allow training resources to be most

targeted to people for whom training will be most effective. Finally, significantly more work needs to be done estimating the general equilibrium effects of job training programs—the spillovers both positive and negative to determine whether these programs have costs or benefits that accrue to nonparticipants (i.e., Lise, Seitz and Smith, 2004; Crépon, et al. 2011).

## **VII. Conclusion**

Based on the results of the academic literature on human development in general and on job training in particular, we believe that our training proposal is likely to constitute an effective way to target training resources. We would focus new resources on low-skilled workers who have shown a consistent labor force attachment. We would provide the steady-and-reliable worker with flexible training resources to acquire the basic skills that they are not likely to acquire through on-the-job training in their current occupation and will allow them to move onto a better path for lifetime earnings. We would combine this with a determined new effort to evaluate the impacts of current and prospective job training programs.

Training seems to us to represent an appropriate response to the massive labor market dislocations of the Great Recession and the lingering slow jobs recovery.

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