

A Detailed Assessment of the Value of WOTC

A Follow-Up Study to “Assessing the Effect of the Work Opportunity Credit”

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The current fiscal challenges facing the U.S. have heightened the need for programs to demonstrate that they are cost-effective. The benefits to disadvantaged individuals that come when they are employed through the Work Opportunities Tax Credit program (WOTC) is certainly the main justification for the program. In contrast to other social policy programs, though, WOTC also has the potential to actually reduce government spending on its target population. Virtually all the demographic groups for which employers may use WOTC subsidies receive government assistance in some fashion, typically through a broad range of programs. When individuals in those groups move into employment, they no longer need and are no longer eligible for as much public assistance. In most cases, they may no longer receive any government assistance. Further, unlike most other forms of assistance, WOTC tax credits only come into play when it has essentially succeeded, when an eligible individual moves into employment. The cost of getting such individuals into jobs through WOTC is therefore more than offset by the reduced costs associated with programs for which they are no longer eligible.

Whether WOTC turns out to be “revenue neutral” or can contribute to a net reduction of government spending is an empirical question. The answer turns on a careful assessment of the costs of WOTC and the costs of the programs that individuals no longer use once they move into jobs, such as TANF (Temporary Assistance to Needy Families) and SNAP (Supplemental Nutrition Assistance Program) and Medicaid.

The place to begin that analysis is with the costs of using WOTC. The cost to the Government of administering WOTC is relatively low (\$18.5 M in FY 2012), and there are considerably higher administrative costs associated with running the programs that individuals exit when they move into WOTC-eligible jobs. Such costs are difficult to estimate with any precision: Given that the developments we examine are only likely to reduce the scale of programs and not eliminate them, the appropriate accounting convention should be the marginal costs of administration (i.e., for the marginal participant) and not the average costs. The former cannot be estimated carefully without internal data that are not available to the public. For convenience, therefore, we ignore

both the administrative expenses associated with WOTC on the cost side and the administrative expenses associated with programs that would no longer be used when individuals move into jobs on the benefits side.

WOTC Costs: The calculation of the costs per individual (net of administrative expenses) is straight-forward. Because the WOTC tax credit is only applied when an individual is hired, the program is very inexpensive: a maximum of \$2400 per WOTC-eligible individual (hereafter referred to as "WOTC workers.").¹ As noted earlier, the concern that many individuals might have been hired even if the tax credit was lower does not affect the cost-benefit calculation. It merely suggests that the cost-benefit ratio could be driven to a more favorable level if the credit was reduced. (Overall benefits to society would also be reduced by a smaller program, however.)

A more serious concern is whether employers would have hired WOTC workers even if there had been no tax credit. If so, then the conclusion would be that WOTC played no role in the move of WOTC-eligible individuals into jobs. The program is based on evidence that the target population has difficulty finding jobs, and as noted earlier, it is hard to imagine a context where the tax credit is irrelevant to employers (as opposed to a context where they are not aware of the tax credit). No doubt it is also difficult to imagine a context where no WOTC-eligible candidate would have gotten a job without the tax credit. To what extent has the WOTC program actually changed the behavior of the participating employers and caused them to hire WOTC recipients when they would not otherwise have done so can be estimated?

A conservative estimate is driven by the evidence from the GAO report that 75 percent of employers changed their hiring and employment practices to accommodate WOTC-eligible candidates. It is difficult to imagine that any employer would put in place such practices and then ignore the WOTC program. It is certainly likely that employers without such programs might still consider WOTC candidates as those practices and programs are neither a necessary nor a sufficient condition to hire them. It is difficult to guess what the appropriate figure should be, but 75 percent represents a very strong lower limit. What this figure implies is that WOTC should get credit for 75 percent of any benefits associated with moving WOTC-eligible hires into jobs.

ESTIMATE: 75 percent of benefits from employment are due to WOTC.

Another important question for addressing the cost savings associated with the WOTC program is how long participants stay employed. If WOTC participation causes individuals to move into

¹ * Employers may not receive both the full value of the wage deduction and the tax credit. Accordingly, the maximum enhanced value to the employer of hiring someone using the credit vs. hiring them without it is \$1,560. This is because employers do not receive a deduction to the extent of the amount of the credit claimed. Under WOTC, when the maximum \$2,400 credit is claimed, the \$6,000 wage deduction is reduced by \$2,400. As a result, the value of wage deduction is reduced to \$3,600 x 35% or \$1,260 vs. \$2,100 (35% of \$6,000 in wages) absent the credit. This reduces the value to the employer of the credit by \$ 840 (\$2,100 - \$1,260 = \$840). Consequently, the maximum enhanced value to the employer of hiring a WOTC vs. a non-WOTC eligible individual \$1,560 not \$2,400.

employment and out of various government assistance programs, then the savings are huge: the annual costs of those programs year after year. On the other hand, if the participants only stay in employment a short time, then the benefits are only short-term as well.

There are no good assessments as to how long WOTC individuals stay in employment. The case study cited earlier found that they stayed with the employer as long or longer than non-WOTC employees, which is certainly encouraging. It is also fair to note that these individuals – indeed those in the case study – may not be typical of the workforce as a whole. How should we estimate how long WOTC participants stay employed and off other government programs?

Not surprisingly, there is no available information on the average age of WOTC participants. We do know the age distribution of TANF participants, however, and that is highly relevant because any savings from WOTC comes in large measure from moving individuals off TANF and other programs that have similar eligibility requirements. Fifty-one percent of TANF recipients are between age 20-29, and 25 percent are between age 30-39. Relatively few are in the youngest and oldest segments of the age distribution.²

Given that knowledge, we can then turn to Bureau of Labor Statistics estimates of workforce tenure. This measure only tells us how long an individual stays with an individual employer, not whether they stay employed after they move. Other evidence suggests, though, that when individuals leave an employer, they are twice as likely to move to another job as to unemployment.³ While this estimate may be considerably smaller for WOTC recipients, there is still no reason to believe that average tenure represents the limit of their average employment. If they do lose their job, especially given their work experience, they will not necessarily return to government assistance. Tenure therefore represents a very conservative estimate of how long WOTC recipients may stay employed.

It is difficult to say to what extent WOTC recipients are similar to the average worker. Tenure is less than average for high school dropouts, who are more prominent among the WOTC population, but is no higher for college graduates than for high school graduates. WOTC participants might be more likely to be fired for cause than other workers. Whether they are less likely to quit for a job elsewhere is not clear, the more common reason for tenure to end.

In 2012, average tenure for the workforce was 4.6 years. Estimates are not calculated for the 20-29 or 30-39 age group described above for TANF. For those age 20-24, it is considerably lower, 1.3 years; for 25-34, it is 3.2 years; and for 34-44, it is higher, 5.3 years.⁴ If we use the

² These figures come from the Office of Family Assistance, US Department of Health and Human Services. <http://www.acf.hhs.gov/programs/ofa/resource/character/fv2010/fv2010-chap10-vs-final>.

³ See Fallick, B. and C. Fleischman (2004). The importance of employer-to-employer Flows in the U.S. labor market. Federal Reserve Bank Board of Governors mimeo.

⁴ These figures are from the Bureau of Labor Statistics <http://www.bls.gov/news.release/tenure.t01.htm>.

proportion of TANF recipients in each age group and the mean tenure figure for individuals in the closest BLS age bracket (that is, weight the tenure according to the approximate age distribution), we have a rough estimate of 2.3 years of employer tenure for an age distribution equivalent to that for TANF recipients. We use that figure below to calculate the total value of WOTC benefits. It is certainly possible that average tenure for WOTC workers might be less. But this is still very conservative because it assumes that all WOTC recipients would immediately return to full use of government assistance when their current job ends, and that is certainly not the case.

ESTIMATE: 2.3 years of employment tenure.

The more difficult calculation is the total benefits associated with a WOTC hire in part because there are many benefits and several are difficult to quantify. Among the latter are the benefits when a WOTC candidate is hired to fill an opening as opposed to a candidate who is already employed elsewhere. Such benefits could be considerable: They reduce the overall unemployment rate by adding a net employed worker to the economy, stimulating the economy in the process. If WOTC encouraged employers to create a new job, then the benefits are even greater as the taxes paid by the new hire add considerably to payroll taxes and state and local income taxes. (It is less likely that the wages of WOTC jobs would pay enough to lead to net Federal income tax payments.)

For those 25 percent of cases where we suggest that candidates might have been hired even without the WOTC tax credit, there are still benefits associated with higher corporate profits and the taxes paid on such profits. Other benefits associated with moving an individual into jobs include the fact that rates of crime for individuals and for communities rise for those who are not in the workforce as does stress and stress-related illnesses. Not only is it difficult to calculate the relationships between the move to employment and reductions in crime and illness but the economic costs associated with those reductions are even harder to measure. Still, government expenditures on these programs are massive: California, for example, spends over \$200,000 per year for every youth who is incarcerated and \$46,000 per year for every adult.⁵

Most tangible benefits that are far easier to estimate come from reductions in expenditures for other programs in which WOTC eligible individuals participate. These reductions directly reduce other government spending. The number of such programs is potentially huge in part because WOTC covers 11 different categories of individuals – Veterans, ex-felons, long-term unemployed, etc. Each category is targeted by a separate set of assistance programs. For example, there are more than a half dozen Federal programs to support jobless Veterans. These categories are not mutually exclusive, of course, so individual participants could get benefits from many different programs at the same time. We return to that issue below.

⁵ http://www.lao.ca.gov/reports/2011/calfacts/calfacts_010511.aspx#zxee_link_45_1294170707

Beyond the Federal programs are an even larger maze of State-level programs that could account for even more expenditures on the WOTC-eligible population. There are State-level supplements to virtually all the Federal programs: TANF, SNAP, and Medicaid in particular are administered by the States, and the States spend more on training. There are also special State programs for enterprise zones as well as a range of programs for Veterans. The problem of overlap of categories of State programs may be even bigger than for Federally-mandated programs.

An additional complication associated with assessing any savings from State programs obviously comes from the fact that each State has different programs and funds the common programs at different levels. If we restricted the analysis to, say, just the 10 most prominent Federal and State assistance programs through which WOTC eligible individuals could receive benefits, and each of those 10 programs varies across the 50 States, there are 90,720,000 possible combinations of benefits ($10! / 2 \times 50$). In other words, it is conceivable that any WOTC eligible individual picked at random from the US population could have one of roughly 90 million possible combinations of total government assistance. When we ask what the savings might be when a WOTC eligible individual moves into a job, the answer depends very much on the category that individual might fall into.

To simplify the analyses, we ignore State-specific programs and focus only on Federal programs. Most of those programs are administered by the States. Where benefit levels vary by State, we use the national averages. Leaving out State-level programs certainly makes for a much more conservative estimate of the cost of supporting individuals who are not in the workforce, and, in turn, of the savings associated with moving them to jobs through WOTC.

We also ignore several programs for the unemployed that are prominent as well as expensive because the likelihood that WOTC-eligible individuals are using them is not high. The Job Corps, for example, is a very intensive and costly program (\$25,000 per participant)⁶ for unemployed, disadvantaged youth. It is not clear what percentage of Job Corps participants are eligible for WOTC. But because the Job Corps has many attributes that are designed to get jobs for its participants, it would be difficult to assume that an individual participating in both programs got their job because of WOTC. A second example is unemployment insurance. This is a very expensive program that obviously targets the unemployed. Most individuals would have to exhaust their unemployment insurance benefits before meeting the eligibility requirements for programs like TANF and SNAP, which could then make them eligible for WOTC. It is therefore unlikely that many WOTC eligible individuals would have been receiving unemployment insurance benefits at the time they became WOTC workers. In fact, most WOTC eligible individuals have little if any job history and therefore do not qualify for unemployment benefits.

⁶This estimate was calculated as part of an assessment of the Job Corps conducted by Mathematica.
<http://www.mathematica-mpr.com/labor/jobcorps.asp>

The programs we examine below are the main Federal programs for which WOTC-eligible individuals may also participate. Indeed, TANF and SNAP participation are among the criteria for WOTC eligibility:

- TANF – benefit levels set by each State
- SNAP – administered by the States and supplemented by the States
- Medicaid – administered by the States and in some cases supplemented by them
- HUD-based housing assistance – supplemented by States and localities
- WIA (Workforce Investment Act) training – administered and supplemented by States and localities
- SSI (Supplemental Security Income) – administered by the Federal government. Only five states pay any supplement beyond the Federal benefit levels

Despite the public attention given to TANF-based welfare and its prominence in the WOTC eligibility criteria, it is by far the smallest of the Federal expenditures in the above set. The SNAP budget, for example, is seven times larger than TANF's. Even rental subsidies are five times larger. Medicaid is 37 times larger. Savings in other areas are likely to swamp the benefits associated with a reduction in TANF.

As noted earlier, WOTC-eligible individuals may well receive benefits from several sources. The most difficult task is to estimate the overlaps among programs. Fortunately, the Department of Health and Human Services has provided one important map, that between TANF and other programs.⁷ We use the percentage of TANF recipients who receive another benefit and the size of that benefit to calculate an estimate of the total Federal expenditure on assistances for those individuals. Specifically:

Eight-two percent of TANF recipients receive SNAP payments, and the average such payment is \$377/month or \$4524/year; Ninety-seven percent receive Medicaid with an average expenditure of \$2838; Thirteen percent receive some form of public housing where the payment from HUD costs \$589/month or \$7068 per year; Eleven percent participate in training associated with the Workforce Investment Act (WIA), where \$2738 estimates the average expenditure across the US⁸; Ten percent get supplemental cash payments of \$215/month \$2556 per year. TANF payments themselves average \$395 per month across the US, or \$4740 per year. The expected value of these separate benefits (probability x benefit) can be added together to calculate the total

⁷ US DHHS Office of Family Assistance. Characteristics and Financial Circumstances of TANF Recipients, Fiscal Year 2010.

⁸ WIA is another block grant program, and the range of expenditures across states is considerable. The figure used here comes from a Mathematica estimate of the average across states. See Ten Years of the Workforce Investment Act (WIA): Interpreting the Research on WIA and Related Programs. Paul T. Decker, Mathematica Policy Research, February 2010. [Ten Years of the Workforce Investment Act \(WIA\): Interpreting the ...umdcipe.org/.../WIAWashington/Papers/Decker%20-...](http://www.umdcipe.org/.../WIAWashington/Papers/Decker%20-...)

of all expected benefits of a TANF recipient because the probabilities of receiving each one are not independent from each other. They each depend on virtually identical criterion associated with financial resources.⁹

ESTIMATE: \$12,527 per year of Federal benefits for TANF recipients.

Individuals who qualify for WOTC under other categories are typically eligible for virtually all the above benefits as well as additional ones. Specifically, SSI recipients receive special benefits from the Social Security Administration that are tailored to income. Because the criteria for determining benefit amounts are tailored to attributes of the individual, it is very difficult to determine average payments, and given the wide variance in payments, the average figures may not be so meaningful. The estimate of average SSI benefits for individuals, however, is \$710/month or \$8520/year and \$1060 per month or \$12720 per year for a couple.¹⁰ There are often state-level supplements to the SSI program. While SSI income may count against eligibility thresholds limits for some other programs like TANF, SSI recipients are eligible for those other programs as well. Given that, the total amount of benefits they receive should be considerably higher than the TANF-based estimate above.

Veterans are the group within the WOTC eligibility criteria that have the most assistance programs. Veterans are eligible for all of the above programs – indeed, in many states, they have preferential access to them and have lower eligibility requirements. Beyond that, there are a number of special programs to assist unemployed veterans. The most significant of these is special unemployment insurance, paid for by the Federal government but administered at the state level, for those who cannot find a job when they leave military service. Unemployment benefits are typically pegged at 50 percent of one's most recent employment wage, although for veterans, adjustments are made on a state-by-state basis to compensate for the lower wages and higher benefits associated with military service. The cost of this benefit alone can easily exceed the TANF-based estimate above, although if so, the fact that these other benefits are means-tested would reduce any benefits from them substantially.

Other Federal programs for unemployed veterans include the Veteran's Workforce Investment Program as well as apprenticeship programs and education-based job training associated with the GI Bill. At the State level, there is a vast array of assistance – from protection against evictions to lower credit card rates – that are difficult to monetize. There is little doubt, though, that the combined value of Veteran-specific assistance and more general assistance for unemployed gives Veterans by far the highest level of benefits of any WOTC-eligible group.

⁹ If the probabilities of receiving each benefit were independent of each other, as in the odds of getting "heads" in two separate coin tosses, then the appropriate response would be to multiply them. The probability of individual receiving overlapping benefits would then be very small.

¹⁰ <http://www.socialsecurity.gov/pgm/ssi.htm>

Ex-felons, another category for WOTC eligibility, are also eligible for the above set of programs, although unlike the disabled and veterans, there are no expensive assistance programs specific to them. They account for roughly six percent of the US population.¹¹ Assuming all of them are able and interested in working that translates into roughly 12 percent of the workforce. But WOTC eligibility is restricted to the period one year after release from prison or conviction, whichever is longer, and that represents a relatively small number of individuals. The costs and also the savings attributable to WOTC for this group is likely to be modest.

Does Assistance End with Employment? An important caveat to the conclusions above is the extent to which individuals who move from not participating in the workforce to employment through the WOTC program might still receive financial assistance from these government programs even though they are employed. Some assistance programs are based simply on whether one is employed. With very few exceptions, job training programs like WIA or unemployment insurance cannot be used by individuals who are employed. The other programs are means-tested, which means that it is possible to have earned income and still receive assistance from those programs, albeit at reduced levels.

Determining whether assistance ends with employment begins by asking what level of income should we expect WOTC workers to earn? Estimating the expected earnings of those working under the WOTC program is a difficult thing to do. The few studies noted in the report that looked at the effects of WOTC examined wages and outcomes for WOTC *eligible* individuals whether they were employed or not. Our concern is with the earnings of those who have jobs where their employer is receiving WOTC tax incentives and, specifically, for those with jobs with employers that meet the test for an employer to earn the maximum tax credit.

A reasonable assumption is that WOTC workers will probably be hired into non-exempt, hourly jobs and probably as well for those positions that are relatively unskilled. Two estimates anchor the upper and lower bounds of probable earnings. (Because the assistance programs considered below typically report benefit levels at a per month level, the estimates of potential earnings for WOTC are also expressed per month.) The first is the average monthly earnings for hourly paid employees in the US, which is \$3072. This is quite likely to be above, perhaps well above, what the average WOTC worker could earn, given that this figure includes highly skilled jobs such as craft workers. The lower bound is represented by the Federal minimum wage, with no State-level supplements, overtime work, or other supplements: roughly \$1260 per month. This is likely to be below the average WOTC worker wage. Only 4.7 percent of workers earn this low a

¹¹ GROWTH IN THE U.S. EX-FELON AND EX-PRISONER POPULATION, 1948 TO 2010. Sarah Shannon, Christopher Uggen, Melissa Thompson, Jason Schnittker, and Michael Massoglia. <http://paa2011.princeton.edu/papers/111687>.

wage, and they are disproportionately teenagers, typically in part-time work: The majority of those paid this little are in the 20 percent of all workers who are younger than 25.¹²

Estimates that are somewhere in between include the median wages for high school dropouts and for high school graduates, which is roughly \$1900 per month (\$12/hr) and \$2600 per month (\$16/hr), respectively.

The next step is to examine which programs allow an individual to have work-related income and still receive benefits and what the upper limit on that income is. If it is less than the expected wage for a WOTC worker, then no benefits are paid, and WOTC gets credit for the associated reduction in such benefits.

Starting with the TANF program: Because it is a State-run program (although funded largely by Federal block grants), the rules determining how much income participants can earn and still receive payments vary considerably state-by-state. Efforts to examine practices across states are rare. A 2004 Urban Institute study concluded that only 13 States allowed a family of three to earn more than \$1000 and receive benefits.¹³ Benefit levels since then have on average declined, and there is no reason to believe that the ceiling for earnings has increased. Most states therefore will not allow an individual earning even minimum wage to receive TANF benefits. More recently, though, some states have changed policies to allow TANF recipients who move to a higher-earning position to keep some proportion of any earnings above that ceiling in order to create incentives for them to earn more money. Mississippi, for example, allows recipients to receive TANF benefits six months after they take a job with wages that would otherwise disqualify them from eligibility. Washington State and Maine have a 50 percent offset, so benefits are reduced by 50 cents for every dollar of income above the eligibility threshold, up to a different, higher ceiling. Illinois is even more generous, with a 25 percent offset again up to a ceiling. Those higher ceilings are typically still below the pay level we expect for WOTC workers, though, and this offset arrangement has relative short time limits: One cannot keep collecting benefits indefinitely with income above the basic eligibility level. And most States do not have these offset arrangements.

SNAP benefits can be paid to individuals with income at higher levels than TANF, up to 130 percent of the poverty level based on family size. Benefits above the basic eligibility level are reduced by a 30 percent offset or tax as income rises to that 130 percent level. Beyond that point, eligibility ends. SSI has a much stricter eligibility limit, which is the benefit amount, minus various income deductions, and a dollar-for-dollar offset on additional income up to that level.

¹² All the wage and income estimates here come from the Bureau of Labor Statistics for 2012. The BLS does not often report mean and median measures for the same series, which is why the text here sometimes switches between them. The median is less sensitive to outliers but may be more complicated to use in calculations.

¹³ <http://www.urban.org/publications/900772.html>

Medicaid income eligibility requirements vary by state but appear to be below the level that a WOTC worker could expect to earn. In New York State, for example, the limit is \$750/month or \$8994/year for an individual and \$1114/month or \$13360/year for a family of three. As with most States, eligibility ends when income rises above that income level. Eligibility in California is set at a slightly higher limit reflecting higher average costs of living (\$908/month for individuals and \$1545/month for a family of three). The program allows for six additional months of coverage if a covered individual sees their income rise above that level but still be below 180 percent of the poverty level.

Housing assistance through HUD is the one benefit that can extend well into and beyond the wage level we expect for WOTC workers. In Mississippi, for example, a low-cost state, benefits can still be received for individuals making up to \$27,000/year. Benefits decline with income, though, and the decline begins with income near the poverty level.

With the exception of HUD-based housing benefits, we do not expect that individuals earning WOTC-level jobs will be able to access much if any Federal assistance. A conservative estimate might be that only half the HUD-based benefits would be saved when an individual moves from public assistance to a WOTC-paying job. Some modest reduction in SNAP benefits seems appropriate, given that some reduced level of benefits can be paid roughly up to the level of income we expect for the median WOTC job. (Half the jobs would therefore be below that level-perhaps 20 percent.)

The income eligibility levels for TANF and Medicaid are lower still, implying that far fewer WOTC workers would qualify for any benefits. The fact that there are provisions in some States to taper down benefits rather than eliminate them altogether when pay rises above the eligibility level does reduce the savings in assistance associated with moving those not in the workforce into WOTC jobs. Any adjustment to these benefits should be even smaller, perhaps 10 percent. These adjustments are incorporated in the final estimate below.

SUMMING UP:

The estimate of Federal assistance saved by moving a TANF-eligible individual into a job was \$12,570 per year. The adjustments above bring that figure down to \$11,178.

The estimate above is that such individuals will then remain off assistance for a minimum of 2.3 years. We earlier estimated that WOTC could conservatively be given credit for 75 percent of WOTC-eligible individuals transitioning into jobs. That would put the value of the reduction in Federal assistance associated with that transition at \$19,282.

Subtracting the \$1,560 value of the WOTC tax credit from that figure leaves a net gain of **\$17,722 from the WOTC program**. The figure should be higher for SSI and much higher for Veteran participants in WOTC because the cost of the associated assistance they receive when unemployed is much higher.