Mathematica®
Progress Together

Socioeconomic Impact Analysis Evaluation Report

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Executive Summary

SourceAmerica® and the National Industries for the Blind (NIB) engaged Mathematica to investigate the economic impact of the AbilityOne® Program and its network of nonprofit service providers. In particular, they sought to understand the following:

- The impacts of the AbilityOne Program on the employment and wages of people with disabilities and the resulting savings for the federal government from this employment
- The extent to which increases in employment from the AbilityOne Program have multiplier effects on surrounding economies through more jobs, income, and tax revenue
- The return on investment for every dollar spent on the AbilityOne Program

Developing a better understanding of these impacts helps SourceAmerica and NIB to inform federal government procurement practices and customers, affiliated agencies, policymakers, and regulatory bodies about the value of the AbilityOne Program.

This report summarizes Mathematica's findings. The AbilityOne Program generates savings to the federal government through reduced reliance on public programs and increased tax revenue that results from the employment of individuals who are blind or who have significant disabilities who likely would not have been employed if the AbilityOne Program did not exist. Empirical evidence indicates that people with disabilities have low employment rates.[1] Estimated direct benefits to the federal government ranged from $104.9 million (lower bound) to $538.3 million (upper bound) from AbilityOne contracts facilitated by both SourceAmerica and NIB. In addition, the income generated via multiplier effects in the local economy resulted in $24.8 million (lower bound) to $73.5 million (upper bound) in additional tax revenues.

Using the midpoint of our direct effect estimates, $321.6 million, and accounting for the costs of administering the program, the AbilityOne generates a positive return on investment of $2.31 dollars to the federal government for every dollar spent on the program. At the lower bound of impacts, where we assume most AbilityOne workers would be employed in the absence of the program, we estimate the AbilityOne Program generates $0.75 to the federal government for every dollar spent on the program. At the upper bound of impacts, where we assume employment rates of current AbilityOne workers mirror rates of employment for people with disabilities in aggregate, we estimate the program generates $3.87 to the federal government for every dollar spent on the program. If we incorporate multiplier effects in the surrounding economy (the indirect impacts), the return-on-investment ranges from $0.93 per federal dollar spent (lower bound) to $4.40 per federal dollar spent (upper bound). Neither the lower bound or upper bound is a realistic estimate of actual impact or return on investment but given the large disparity in actual employment rates of people with and without disabilities, and the high threshold for eligibility for the AbilityOne Program, we feel confident that the actual return on investment is positive and likely closer to the upper bound estimate than the lower bound estimate. We briefly describe our methodology below.

[1] According to the 2021 Annual Disability Statistics Compendium, 37 percent of civilians with disabilities ages 18 to 64 were employed. Available at: https://disabilitycompendium.org/sites/default/files/user-uploads/Events/2022ReleaseYear/2021_Annual_Disability_Statistics_Compendium_WEB.pdf. Among clients who exited vocational rehabilitation (VR) services in fiscal year 2017, 31 percent were employed at exit. Yin, Michelle, et al. "Identifying Racial Differences in Vocational Rehabilitation Services." Rehabilitation Counseling Bulletin 66.1 (2022): 13-24.

To estimate the true impacts of the program requires knowing what outcomes would be if the program did not exist. Because that information is not available, we calculated two sets of estimates at extreme hypothetical scenarios to set boundaries on the range of the likely impact. These scenarios are (1) a world of total inclusion, in which employment rates of people who are blind or who have significant disabilities are equal to those of people without disabilities, and (2) a world in which AbilityOne employees would be employed at the same rate as people who are blind or who have significant disabilities in their state. Using employment and earning rates in these scenarios for comparison, we generated lower and upper bound estimates of the economic impacts of the AbilityOne Program. The lower and upper bound compare the employment outcomes and the estimated federal benefit program participation and federal income tax contributions of current AbilityOne workers with an estimate of what their outcomes would have been if the AbilityOne Program did not exist.

In addition to these estimated aggregate direct impacts of the program, we also estimated direct impacts among subgroups of workers on SourceAmerica contracts, including by race, primary disability, and state. Next, we investigated the potential multiplier effects of the increased employment due to the AbilityOne Program, such as other jobs created, and federal tax revenue generated. These estimates represent the indirect impacts of the program. Finally, we calculated an estimated return on investment of the program, taking into account both the estimated impacts and program costs. We aggregated SourceAmerica and NIB's program fee revenues ($128.6 million) and the operating costs of the AbilityOne Commission® in 2021 ($10.5 million) and considered this an estimate of the additional annual cost of contracting under the AbilityOne Program. Using this estimate of costs and the estimated direct benefits to the federal government under the two scenarios described, we calculated program-wide return on investment.

I. Introduction

SourceAmerica and the National Industries for the Blind (NIB) are designated central nonprofit agencies statutorily required[2] to facilitate contracting between nonprofit agencies (NPAs) and the federal government and to administer contracts under the AbilityOne Program. SourceAmerica and NIB currently work with about 500 NPAs that, in fiscal year 2020, contracted for about $4 billion in products and services with the federal government under AbilityOne and employed more than 42,000 employees who are blind or who have significant disabilities. About 90 percent of employees in the AbilityOne Program are employed through SourceAmerica NPAs.

SourceAmerica and NIB wanted to understand the current economic impact of the AbilityOne Program at the national and state levels, for different types of employees (by gender, race and ethnicity, and disability type), and across various sectors. The aims of the economic impact analysis were to

- Understand the impacts of the AbilityOne Program on the employment and wages of people with disabilities and the resulting savings to the federal government
- Investigate the extent to which increases in employment from the AbilityOne Program have multiplier effects on surrounding economies through more jobs, income, and tax revenue
- The return on investment for every dollar spent on the AbilityOne Program.

[2] Available at https://uscode.house.gov/view.xhtml?path=%2Fprelim%40title41%2Fsubtitle4%2Fchapter85&req=granuleid%3AUSC-prelim-title41-chapter85&f=&fq=&num=0&hl=false&edition=prelim

SourceAmerica and NIB will use these results to inform federal government procurement practices and customers, affiliated agencies, policymakers, and regulatory bodies about the value of the AbilityOne Program. Although SourceAmerica conducted a similar study in 2017 (based on 2016 data), recent changes in the economic and policy environments have affected the procurement context and the program's direct impacts. In addition to the COVID-19 pandemic, inflation, wage increases, and a tighter employee market, two policies have particular importance for the program: (1) the 2014 executive order that established a minimum wage of $10.10 an hour for federal contractors in service jobs and (2) the continued phase-out of Section 14(c) certificate employment by NPAs. The current study provides estimates of the AbilityOne Program based on the most recent data and expands the scope of the previous study by analyzing subgroups and the indirect effects of the program.

SourceAmerica and NIB contracted Mathematica to serve as an independent evaluator of the economic impact of the AbilityOne Program. This report, which summarizes our findings, proceeds as follows: Sections II and III present direct impacts overall and by subgroups of interest; Section IV presents the indirect impacts of the program; Section V provides estimates of the return on investment of the AbilityOne Program, and Section VI features a discussion of the results and describes limitations of the analysis. We describe the methods and the data and software we used in the appendix.

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II. Overall Direct Impacts of the AbilityOne Program

Impacts of AbilityOne contracts facilitated by SourceAmerica

Overall impacts

Estimated federal government savings resulting from AbilityOne contracts facilitated by SourceAmerica ranged from $103.7 million to $516.6 million annually. We estimated increased federal tax revenues and savings to four government programs: Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), Medicare, and the Supplemental Nutrition Assistance Program (SNAP) **(Exhibits II.1 and II.2).** Savings to the government accrue through two channels:

- Employment is higher because of the AbilityOne Program, so tax revenues are higher and fewer employees receive public benefits
- Some AbilityOne employees who would have worked even if the program did not exist earned a higher income in the AbilityOne Program than they otherwise would have earned, which results in higher tax revenues and lower benefit payments because many programs, such as SSI and SNAP, pay benefits based on income

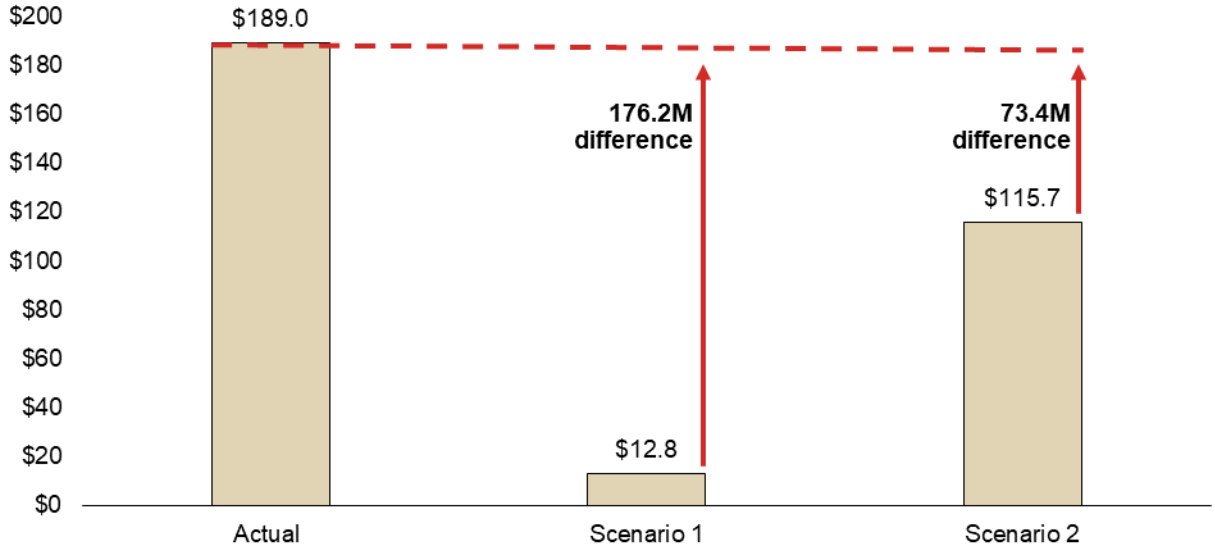
The upper bound estimate assumes that, without the program, AbilityOne employees would be employed at similar rates as people with significant disabilities in their state (Scenario 1). In this scenario, about 77 percent of AbilityOne employees would not be employed if the program did not exist.[3] The lower bound estimate assumes that, without the program, AbilityOne employees would be employed at similar rates to all adults of working age in their state (Scenario 2).[4] In this scenario, about 5 percent of AbilityOne employees would not be employed if the program did not exist.

Federal tax revenues

We estimated that savings stemming from additional tax revenue ranged from $73.4 to $176.2 million annually (Exhibit II.1). The AbilityOne Program increases federal tax revenues through the two channels described above. First, the increase in the employment rate of people with disabilities results in more people joining the tax pool and contributing federal taxes. Second, among those who would have been employed regardless of whether the program existed, the program increases the wages of people with disabilities. This results in increased tax revenues because tax liability amounts that are conditional on a fixed tax rate are higher and because the marginal tax rate is higher at higher incomes. The second channel is the primary reason behind the savings observed under the lower bound scenario (Scenario 2), which assumes that almost all AbilityOne workers on contracts facilitated by SourceAmerica are employed in the absence of the program.

[3] We obtain information about the unemployment rate of people with significant disabilities in each state from the American Community Survey. See the appendix for more details.
[4] We obtain information about state-level unemployment rates from U.S. Bureau of Labor statistics; see the appendix for more details.

Exhibit II.1. Federal tax revenues (in millions) from AbilityOne employees working on SourceAmerica contracts



Source: Authors' analysis of Employee Research System, Quarterly Employment Report, and American Community Survey data.

Note: Actual tax revenues represent the total estimated tax liabilities of AbilityOne employees working on SourceAmerica contracts between July 2021 and June 2022. Tax revenues under each scenario are an estimate of existing employees' tax liabilities if the program did not exist and we assume low rates of employment (Scenario 1) or high rates of employment (Scenario 2). We calculated tax liability with the National Bureau of Economic Research's tax calculator. Federal taxes are the sum of income and FICA taxes.

FICA = Federal Insurance Contributions Act.

Public benefits

Increased income from the program not only generates more tax revenues but also implies lower rates of benefit receipt and lower benefit amounts received conditional on receiving benefits. We estimated savings to four government programs—SSI, SSDI, Medicare, and SNAP—and found that **savings from lower benefit payments ranged from $30.4 million to $340.3 million annually (Exhibit II.2).** We describe savings stemming from each of the four government programs we analyzed below.

SSI. Workers with low income who cannot engage in substantial gainful activity because of their disability, qualify for SSI. Substantial gainful activity is measured as the earnings above a monthly threshold. In 2021, substantial gainful activity was $1,310 for people who are not blind. Workers who earn below this threshold can qualify for SSI benefits if they meet other eligibility criteria.[5] SSI benefits scale with income (that is, for every $2 in earnings, the amount of SSI benefits decreases by roughly $1). In 2021, the maximum monthly amount of SSI benefits was $794 for an individual.

We estimated that 15.8 percent of about 40,000 AbilityOne employees on SourceAmerica contracts received SSI benefits. Total annual expenditures for this population were estimated to be $30 million. We estimated that 16.7 to 30.1 percent of AbilityOne workers would receive SSI benefits if the AbilityOne

[5] To qualify for SSI, people must also have assets valued below a certain threshold.

Program did not exist, resulting in SSI expenditures of $35.7 to $109.3 million (**Exhibit II.3**). **The difference in expenditures yield an estimated $5.7 to $79.3 million in annual savings because of lower SSI benefit payments.**

SSDI. To qualify for SSDI, a person must have a medically determinable impairment that has lasted or is expected to last for at least 12 months or result in death and be unable to engage in substantial gainful activity. They must also have a sufficient work history. Unlike in SSI, SSDI benefit amounts are generally fixed and based on a workers' earnings history. If a worker begins earning above the substantial gainful activity threshold, their SSDI benefits are suspended and eventually terminated if they have sustained work above substantial gainful activity. In 2021, the average SSDI monthly benefit amount was $1,358.

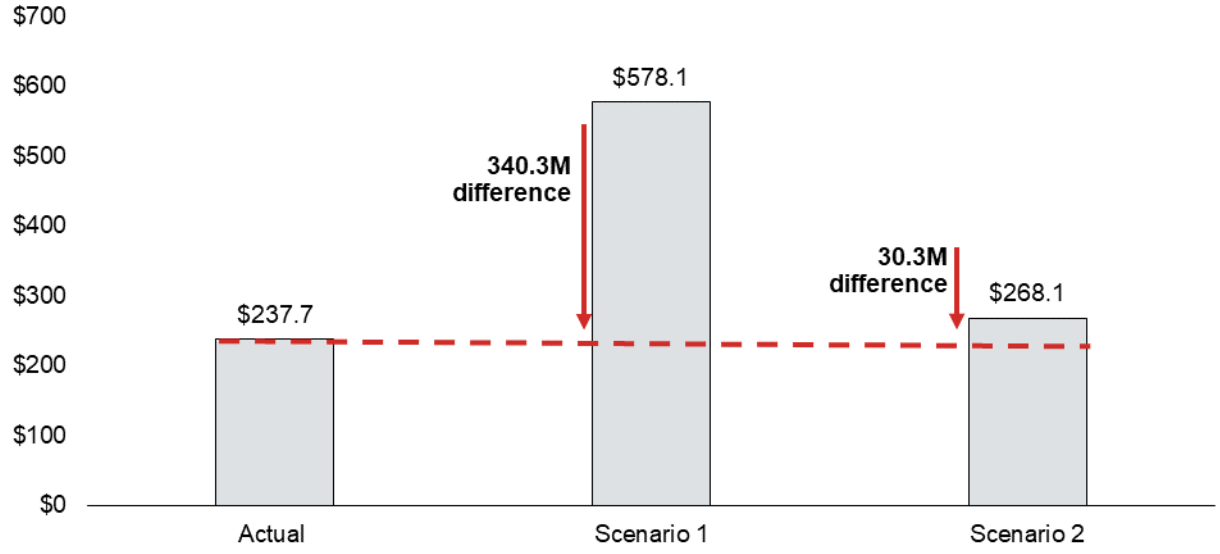
We estimated that 22.5 percent of AbilityOne workers on SourceAmerica contracts received SSDI benefits and that total SSDI expenditures on AbilityOne workers was about $95.0 million. We used published statistics from 2021 on average monthly benefit amounts for different demographic groups to assign benefit amounts to AbilityOne workers based on their age and sex. We estimated that 23.4 to 38.2 percent of AbilityOne workers would receive SSDI benefits if the AbilityOne Program did not exist, corresponding to total SSDI expenditures of $113.8 to $249.9 million (**Exhibit II.3**). **These estimates suggest that the AbilityOne Program saved the SSDI program $18.8 to $154.9 million annually.**

Medicare. Workers can qualify for Medicare if they are older than age 65 or if they are receiving SSDI benefits. The SSDI program provides a pathway to Medicare eligibility, and most SSDI recipients qualify for Medicare 24 months after they become eligible for disability benefits. This is the primary channel through which AbilityOne workers qualify for Medicare. We estimated that 17.6 percent of AbilityOne workers on SourceAmerica contracts received Medicare. About 91 percent of these workers were younger than age 65 and therefore qualified for Medicare via their enrollment in the SSDI program. We assumed that workers enrolled in Medicare incurred annual expenditures that equaled the average annual Medicare expenditures for workers under 65,[6] which amount to $14,445 dollars per year. We estimated that between 18.4 and 31.3 percent of AbilityOne workers would receive Medicare if the AbilityOne Program did not exist, corresponding to total Medicare expenditures of $115.6 to $196.5 million (**Exhibit II.3**). **This suggests that the AbilityOne Program saved $5.1 to $86.0 million in annual Medicare spending.**

SNAP. SNAP benefits are intended to supplement household income to help buy healthy food. In general, households qualify for SNAP benefits if their gross monthly income is at or below 130 percent of the federal poverty line (in 2021, this amounted to $1,396 per month for a single person household) and their assets are below certain limits. Similar to SSI benefits, SNAP benefit payment amounts scale with income. In general, every $3 in income reduces SNAP benefits by $1. The maximum monthly benefit amount in 2021 for a single-person household was $250. We estimated that 15.5 percent of AbilityOne workers on SourceAmerica contracts received SNAP benefits and total annual SNAP expenditures equaled $2.2 million. We estimated that 16.2 to 26.6 percent of AbilityOne workers would receive SNAP if the AbilityOne Program did not exist and SNAP expenditures would range from $2.9 to $22.3 million (**Exhibit II.3**). **These estimates suggest the AbilityOne Program saved $0.7 to $20.1 million in annual SNAP expenditures.**

[6] Obtained from these estimates from the Kaiser Family Foundation analysis of the Medicare Current Beneficiary Survey available at https://www.kff.org/medicare/issue-brief/medicares-role-for-people-under-age-65-with-disabilities/. We used the Consumer Price Index index for all urban consumers obtained from the U.S Bureau of Labor Statistics to adjust Medicare expenditure estimates for inflation.

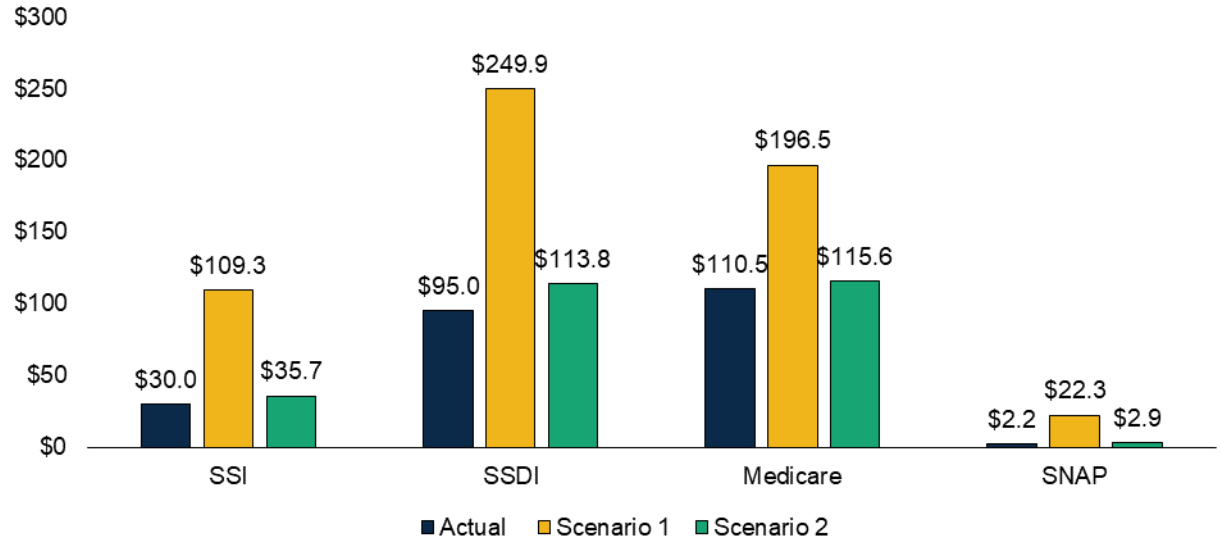
Exhibit II.2. Benefit amounts paid (in millions) to people working on SourceAmerica AbilityOne contracts



Source: Authors' analysis of Employee Research System, Quarterly Employment Report, Rehabilitation Services Administration's Case Service Report, and American Community Survey data.

Note: Actual benefits paid represent total benefits paid to AbilityOne employees working on SourceAmerica contracts between July 2021 and June 2022. Benefits paid under each scenario are an estimate of benefit amounts paid to employees if the program did not exist and we assume low rates of employment (Scenario 1) or high rates of employment (Scenario 2).

Exhibit II.3. Benefit amounts paid (in millions), by type



Source: Authors' analysis of Employee Research System, Quarterly Employment Report, Rehabilitation Services Administration's Case Service Report, and American Community Survey data.

Note: Actual benefits paid represent SSI, SSDI, Medicare, and SNAP benefits paid to AbilityOne employees working on SourceAmerica contracts between July 2021 and June 2022. Benefits paid under each scenario are an estimate of benefit amounts paid to employees if the program did not exist and we assume low rates of employment (Scenario 1) or high rates of employment (Scenario 2).

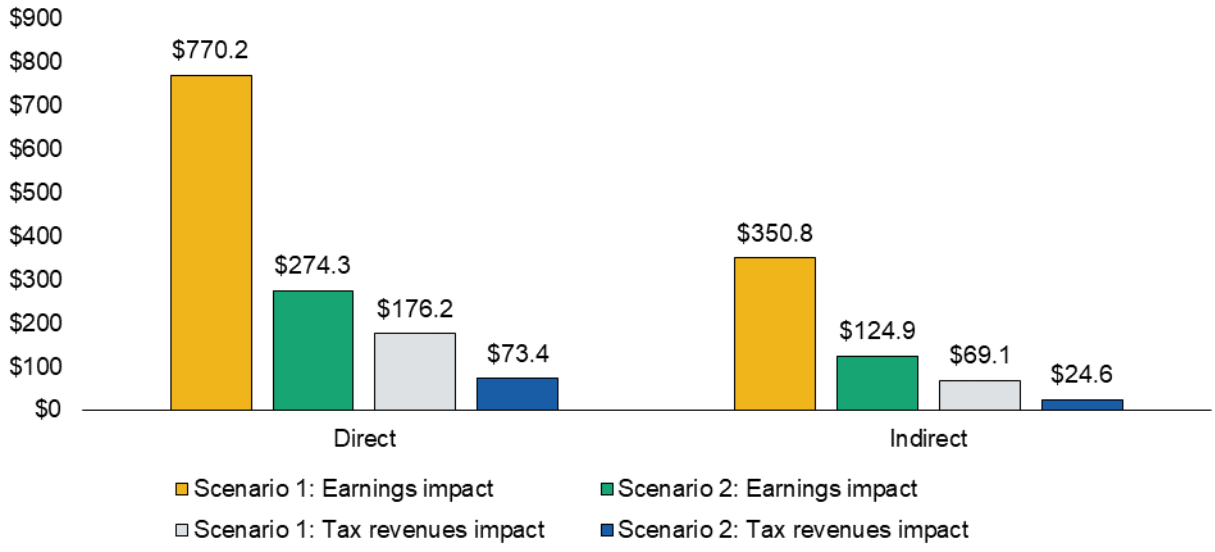
SNAP = Supplemental Nutrition Assistance Program; SSDI = Social Security Disability Insurance, SSI = Supplemental Security Income.

Earnings

We also estimated the direct impacts on total worker earnings and the indirect impacts on earnings stemming from the increased economic activity that came as a result of increased employment for people with disabilities (**Exhibit II.4**). **The direct impact on employment resulted in about $274.3 to $770.1 million increase in earnings.** This increase in earnings represents a benefit to AbilityOne employees, but it is not included in our estimate of total direct impacts because we only measure costs and benefits from the perspective of the federal government. Nevertheless, this increase in earnings represents a benefit from a societal perspective.

These additional dollars flowing into the economy helped generate jobs and resulted in roughly $124.9 to $350.8 million more dollars in labor income and $24.6 to $69.1 million more federal tax revenues.

Exhibit II.4. Direct and indirect impacts (in millions) of AbilityOne contracts facilitated by SourceAmerica on earnings and tax revenues



Source: Authors' analysis of Employee Research System, Quarterly Employment Report, and American Community Survey data. Indirect effects were estimated via IMPLAN software.

Note: This exhibit shows the direct impacts on earnings and tax revenues (because of increased employment) and the indirect impacts on earnings and tax revenues from increased economic activity that came as a result of increased employment for people with disabilities. Scenario 1 assumes that employees would have a similar employment rate to adults with significant disabilities in their state if the AbilityOne Program did not exist. Scenario 2 assumes that employees would have a similar employment rate to all adults in their state if the AbilityOne Program did not exist.

Impacts of AbilityOne contracts facilitated by NIB

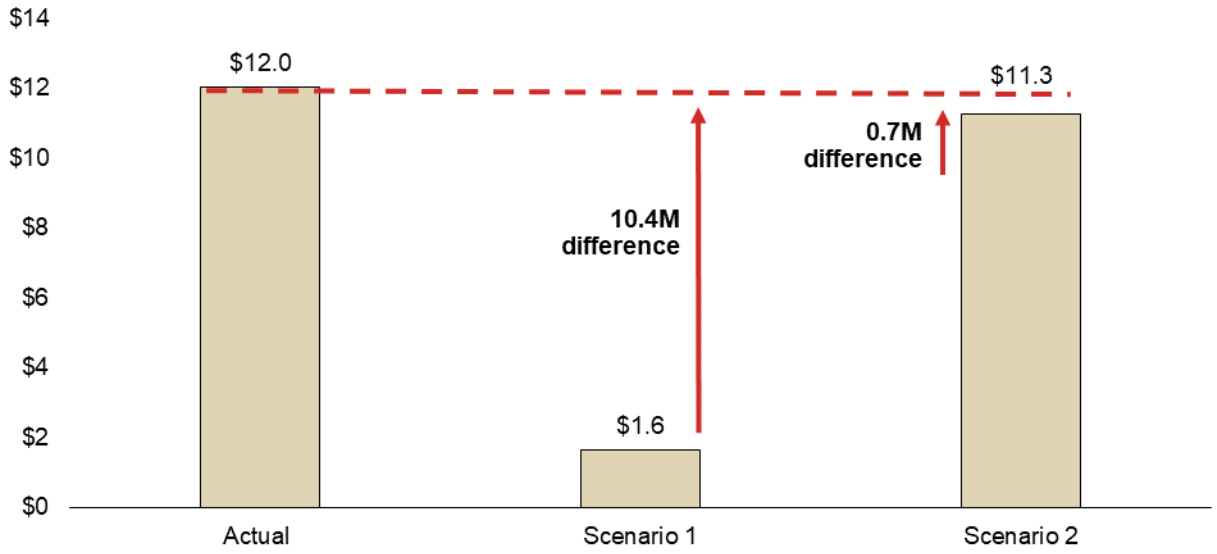
Overall impacts

Estimated savings resulting from AbilityOne contracts facilitated by NIB ranged from $1.2 million to $21.7 million annually. We estimated increased federal tax revenues and savings to four government programs (SSI, SSDI, Medicare, and SNAP) from AbilityOne contracts facilitated by NIB (**Exhibits II.5 and II.6**). The assumptions used to construct Scenario 1 (upper bound) and Scenario 2 (lower bound) estimates correspond to those used for the SourceAmerica analyses, except that, under Scenario 1, we assumed that in absence of the AbilityOne Program, workers on contracts facilitated by NIB would be employed at the same rate as people with severe visual impairments (rather than people with significant disabilities).

Federal tax revenues

Savings from additional tax revenue range from $0.7 to $10.4 million annually (Exhibit II.5), and savings from lower benefit payments range from $0.4 to $11.3 million annually (Exhibit II.6). Together, these estimates indicate that the AbilityOne contracts facilitated by NIB generated $1.2 million to $21.7 million in savings to the federal government.

Exhibit II.5. Federal tax revenues (in millions) from people working on NIB AbilityOne contracts



Source: Authors' analysis of Quarterly Data Reporting and American Community Survey data.

Note: Actual tax revenues represent the total estimated tax liabilities of AbilityOne employees working on NIB contracts in 2021. Tax revenues under each scenario are an estimate of tax liabilities of existing employees if the program did not exist and we assume low rates of employment (Scenario 1) or high rates of employment (Scenario 2). We calculated tax liability with the National Bureau of Economic Research's tax calculator. Federal taxes are the sum of income and FICA taxes.

FICA = Federal Insurance Contributions Act; NIB = National Industries for the Blind.

SSI. We estimated that 8.9 percent of AbilityOne employees on NIB contracts received SSI benefits.[7] Total annual expenditures for this population were estimated to be $2.9 million. We estimated that 9.0 to 12.5 percent of AbilityOne workers would receive SSI benefits if the AbilityOne Program did not exist, resulting in SSI expenditures of $3.0 to $4.1 million (**Exhibit II.7**). **The difference in expenditures yielded an estimated $0.04 to $1.2 million in annual savings from lower SSI benefit payments.**

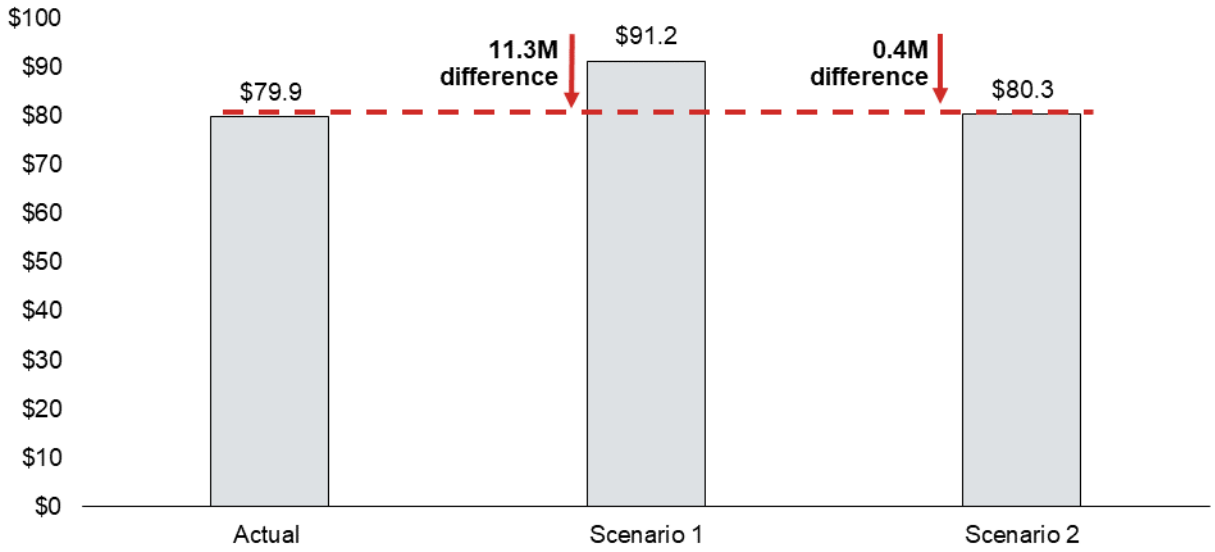
SSDI. We estimated that 63.1 percent of AbilityOne workers on NIB contracts received SSDI benefits and that total SSDI expenditures for these workers was about $48.2 million. SSDI benefit receipt rates are much higher than SSI benefit receipt rates, presumably because most NIB NPA employees have a qualifying work history that makes them eligible for SSDI and because their earned income might make them ineligible for SSI, which is a means-tested program. We used published statistics from 2021 on average monthly SSDI payments to people with the Nervous System and Sense Organs diagnosis code to assign benefit amounts. We estimated that 63.5 to 72.9 percent of AbilityOne workers would receive SSDI benefits if the AbilityOne Program did not exist, which corresponded to total SSDI expenditures of $48.5 to $55.7 million (**Exhibit II.7**). **These estimates suggest that the AbilityOne Program saved the SSDI program $0.3 to $7.5 million annually.**

Medicare. As we described in the previous section, we assumed that workers enrolled in Medicare incurred annual expenditures that equaled the average annual Medicare expenditures for workers younger than age 65. This amounted to $14,445 dollars per year. We estimated that 41.4 percent of AbilityOne workers on contracts facilitated by NIB were enrolled in Medicare. If the program did not exist, we estimated that 41.6 to 45.2 percent of AbilityOne workers in NIB contracts would be enrolled in Medicare, which corresponded to total SSDI expenditures of $28.6 to $31.1 million (**Exhibit II.7**). **This suggests that the AbilityOne Program saved $0.1 to $2.5 million in annual Medicare spending.**

SNAP. We estimated that 2.9 percent of AbilityOne workers on NIB contracts received SNAP benefits, and total annual SNAP expenditures equaled $174 thousand. We estimated that 3.0 to 5.4 percent of these workers would receive SNAP if the AbilityOne Program did not exist, and SNAP expenditures would range from $180 to $321 thousand (**Exhibit II.7**). **These estimates suggest the AbilityOne Program saved $5 to $146 thousand in annual SNAP expenditures.**

[7] Estimates of SSI, SSDI, and Medicare receipt rates among NIB workers are based on the 2018 employee survey data.

Exhibit II.6. Benefit amounts paid (in millions) to people working on NIB AbilityOne contracts

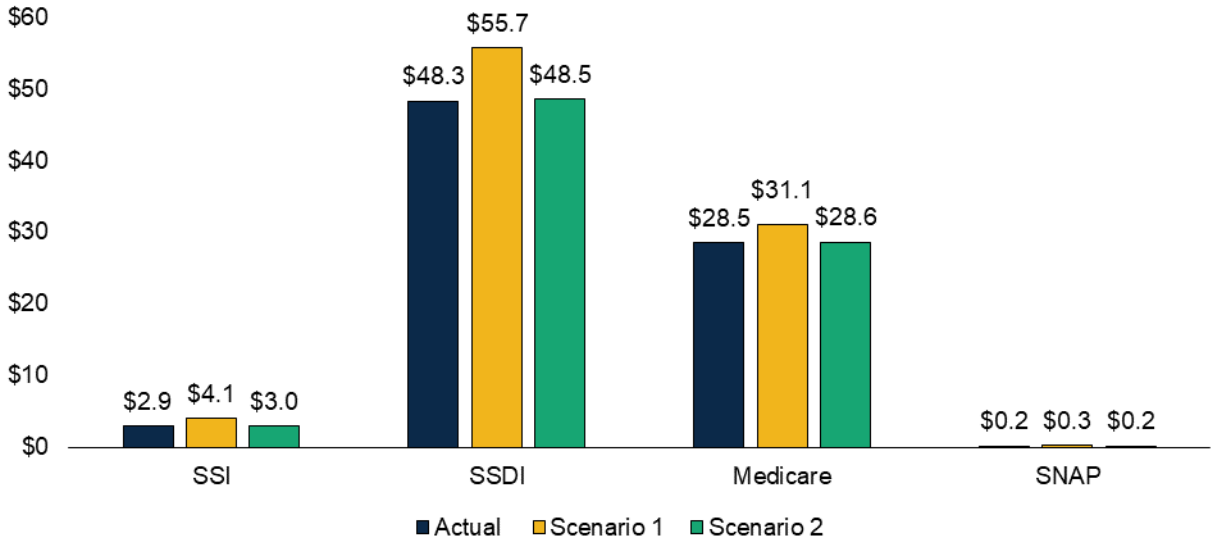


Source: Authors' analysis of Quarterly Data Reporting, 2018 employee survey data, Rehabilitation Services Administration's Case Service Report, and American Community Survey data.

Note: Actual benefits paid represent total benefits paid to AbilityOne employees working on NIB contracts based on information from the 2018 employee survey. Benefits paid under each scenario are an estimate of benefit amounts paid to employees if the program did not exist and we assume low rates of employment (Scenario 1) or high rates of employment (Scenario 2).

NIB = National Industries for the Blind.

Exhibit II.7. Benefit amounts paid (in millions), by type



Source: Authors' analysis of Quarterly Data Reporting, Rehabilitation Services Administration's Case Service Report, and American Community Survey data.

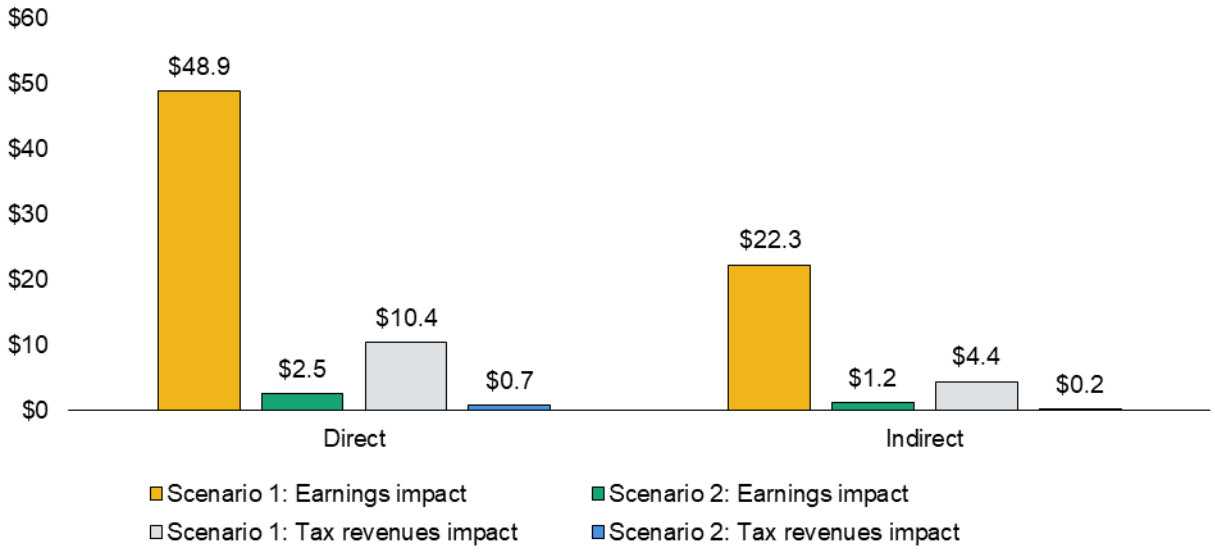
Note: Actual benefits paid represent total benefits paid to AbilityOne employees working on NIB contracts based on information from the 2018 employee survey. Benefits paid under each scenario are an estimate of benefit amounts paid to employees if the program did not exist and we assume low rates of employment (Scenario 1) or high rates of employment (Scenario 2).

SNAP = Supplemental Nutrition Assistance Program; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

Finally, we estimated the direct impacts on total earnings (from increased employment) and the indirect impacts on earnings from increased economic activity that came as a result of increased employment for people who are blind (**Exhibit II.8**). **We projected that the additional employment generated by the AbilityOne contracts facilitated by NIB resulted in a $2.5 to $48.9 million increase in earnings.**

These additional dollars flowing into the economy helped generate jobs and resulted **in roughly $1.2 million to $22.3 million more dollars in labor income and $0.2 to $4.4 million more federal tax revenues**.

Exhibit II.8. NIB direct and indirect impacts (in millions) on earnings and tax revenues



Source: Authors' analysis of Quarterly Data Reporting and American Community Survey data. Indirect effects were estimated via IMPLAN software

Note: This exhibit shows the direct impacts on total earnings and tax revenues (from increased employment) and the indirect impacts on earnings and tax revenues from increased economic activity that came as a result of increased employment for people who are blind. Scenario 1 assumes that employees would have a similar employment rate to people who are blind in their state if the AbilityOne Program did not exist. Scenario 2 assumes that employees would have a similar employment rate to all adults in their state if the AbilityOne Program did not exist.

NIB = National Industries for the Blind.

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III. Direct Impacts by Subgroups of Interest (SourceAmerica Only)

Direct impacts could vary across subgroups of employees of NPAs. For example, relative to other groups of employees, the federal government stands to gain the most from employees who are very likely to be unemployed or who would have high benefit claiming rates if the AbilityOne Program did not exist. This group of employees could differ from other workers in terms of their race, primary disability, or state of residence among other characteristics. We developed an analytic tool for SourceAmerica that allows SourceAmerica users to see the direct impacts by subgroups of interest and how impacts vary across the different groups. SourceAmerica staff can examine how impacts vary by demographic characteristics such as age, gender, and race and ethnicity as well as by state, nonprofit agency, line of business, and work locations such as Air Force bases. The tool also allows SourceAmerica users to see the impacts by intersections of these variables (for example, a user can find the impacts for Black female workers with cognitive disabilities in California).

In this section, we present and discuss the direct impacts broken out by state, race, and primary disability. The tool allows users, however, to view impacts for the wider range of subgroup variables as well as the intersection of these variables, as we described above. Readers should note that the sum of impacts across subgroups will not equal the total impacts presented in Section II because the total impact results in Section II have been weighted up to represent impacts for the universe of SourceAmerica NPAs and not just NPAs that submitted data to the Employee Research System (ERS). Subgroup impacts were not weighted up because we don't have demographic information on workers not included in the ERS. The analytic weights are at the NPA level and use information on the characteristics of NPAs not included in the ERS from the Quarterly Employment Report. They do not vary across age, race, gender, or primary disability within an NPA. Therefore, applying the weights to impacts estimated among racial subgroups, for example, will not accurately estimate direct impacts for each of the races across the whole program.

By state

Exhibit III.1 shows direct impacts by state of residence under the lower bound and upper bound scenarios. Under both scenarios, Texas, Virginia, and California are among the top five states in terms of largest impacts, and Montana, North Dakota, and Idaho experienced the lowest impacts. Aligned with this, Texas, Virginia, and California have some of the highest numbers of ERS workers and the highest total AbilityOne sales in fiscal year 2022. The most common lines of business in these states were janitorial or custodial jobs, food service and catering jobs, and facilities management jobs.

Exhibit III.1. Direct impacts by state under the lower and upper bound scenarios

State	Direct impacts: Lower bound	Direct impacts: Upper bound	State	Direct impacts: Lower bound	Direct impacts: Upper bound
AK	$124,196	$777,314	CT	$1,393,923	$9,676,799
AL	$2,579,153	$10,494,408	DC	$722,814	$12,468,993
AR	$58,056	$652,178	DE	$50,201	$461,112
AZ	$1,163,746	$2,783,124	FL	$5,946,374	$35,270,197
CA	$8,042,626	$35,485,984	GA	$746,196	$7,192,491
CO	$228,840	$3,137,905	HI	$125,434	$1,772,003

State	Direct impacts: Lower bound	Direct impacts: Upper bound
IA	$69,378	$346,089
ID	$7,865	$284,252
IL	$1,551,122	$7,312,874
IN	$484,496	$3,771,557
KS	$84,055	$887,554
KY	$231,012	$3,108,223
LA	$48,613	$571,765
MA	$266,077	$1,478,611
MD	$976,394	$9,555,987
ME	$13,213	$523,538
MI	$2,629,331	$18,590,614
MN	$343,971	$932,498
MO	$663,977	$1,475,638
MS	$64,095	$406,717
MT	$12,316	$55,008
NC	$868,232	$4,771,149
ND	$15,256	$316,893
NE	$21,101	$591,216
NJ	$593,315	$2,354,705
NM	$687,683	$3,672,438
NV	$59,036	$1,136,049
NY	$1,623,907	$11,046,186
OH	$618,487	$4,391,487
OK	$243,014	$2,511,177
OR	$473,358	$1,308,470
PA	$1,239,169	$8,020,227
SC	$1,074,306	$3,014,759
SD	$42,245	$1,114,270
TN	$232,644	$847,405
TX	$14,675,300	$51,132,179
UT	$20,975	$1,589,099
VA	$5,571,044	$47,169,921
WA	$4,021,927	$21,379,822
WI	$2,923,173	$6,451,592
WV	$29,218	$787,068
WY	$7,951,651	$18,167,941

Source: Authors' analysis of Employee Research System, Quarterly Employment Report, Rehabilitation Services Administration's Case Service Report, and American Community Survey data.

Note: Direct impacts represent the sum of benefits from increased federal tax revenues and decreased federal outlays in government programs. The lower bound scenario assumes high employment rates among AbilityOne workers in absence of the program, and the upper bound scenario assumes low employment rates in absence of the program.

By race

The second and fourth columns of **Exhibit III.2** shows direct impacts by race for the lower and upper bound scenarios. The size of direct impacts by racial group reflects their shares of the AbilityOne worker population. The third and fifth columns of **Exhibit III.2** show impacts for each racial group as a share of total impacts, and the sixth column shows the share of total workers represented by each race. In general, the size of the direct impact is proportional to the number of workers in each racial group.

Exhibit III.2. Direct impacts by race under the lower and upper bound scenarios

Race	Lower bound		Upper bound		As a share of all workers
	Direct impacts	As a share of total direct impacts	Direct impacts	As a share of total direct impacts	
Hispanic	$18,753,158	26.2%	$105,140,558	29.1%	28.5%
American Indian or Alaskan Native	$629,097	0.9%	$2,523,891	0.7%	0.7%
Asian	$2,224,858	3.1%	$10,765,953	3.0%	2.8%

Race	Lower bound		Upper bound		As a share of all workers
	Direct impacts	As a share of total direct impacts	Direct impacts	As a share of total direct impacts	
Black or African American	$22,430,253	31.3%	$108,370,174	30.0%	29.7%
White	$25,632,202	35.8%	$125,033,513	34.6%	35.4%
Other	$1,942,949	2.7%	$9,413,396	2.6%	2.9%

Source: Authors' analysis of Employee Research System, Quarterly Employment Report, Rehabilitation Services Administration's Case Service Report, and American Community Survey data.

Note: Direct impacts represent the sum of benefits from increased federal tax revenues and decreased federal outlays in government programs. Working with SourceAmerica, we collapsed the information provided in the Employee Research System data into five race and ethnicity categories: Hispanic, American Indian or Alaskan Native, Asan, Black or African American, White, and Other. The lower bound scenario assumes high employment rates among AbilityOne workers in absence of the program, and the upper bound scenario assumes low employment rates in absence of the program.

By primary disability

Exhibit III.3 shows direct impacts by primary disability under the lower and upper bound scenarios. Cognitive disabilities are the most common primary disability among workers in the ERS. Aligned with this, these workers as a group generate the largest direct impacts relative to other groups of workers.

Exhibit III.3. Direct impacts by primary disability under the lower and upper bound scenarios

Primary disability	Lower bound		Upper bound		As a share of all workers
	Direct impacts	As a share of total direct impact	Direct impacts	As a share of total direct impact	
Cognitive	$32,658,412	45.6%	$155,671,123	43.1%	44.6%
Mental or psychiatric	$19,502,443	27.2%	$104,801,268	29.0%	29.0%
Physical	$5,592,065	7.8%	$32,523,107	9.0%	7.9%
Sensory	$4,438,370	6.2%	$20,434,002	5.7%	5.9%
Other	$7,479,820	10.4%	$36,531,249	10.1%	9.7%
Missing	$1,941,407	2.7%	$11,286,735	3.1%	3.0%

Source: Authors' analysis of Employee Research System, Quarterly Employment Report, Rehabilitation Services Administration's Case Service Report, and American Community Survey data.

Note: Direct impacts represent the sum of benefits from increased federal tax revenues and decreased federal outlays in government programs. Information on primary disability of AbilityOne workers on contracts facilitated by SourceAmerica was obtained from the Employee Research System data. The lower bound scenario assumes high employment rates among AbilityOne workers in absence of the program, and the upper bound scenario assumes low employment rates in absence of the program.

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IV. Indirect Effects on Earnings

Overall

We estimated the indirect impacts on earnings from increased economic activity resulting from increased employment for people who are blind or who have significant disabilities. The additional dollars flowing into the economy from work on contracts facilitated by SourceAmerica helped generate jobs and resulted **in roughly $124.9 to $350.8 million more dollars in labor income.** The increased employment and economic activity resulting from work on contracts facilitated by NIB generated **roughly $1.2 million to $22.3 million more dollars in labor income.**

By state

Exhibit IV.1 shows indirect impacts on earnings by state of residence under the lower and upper bound scenarios. The states that experience the largest direct impacts also experience the largest indirect impacts. As a share of the direct effects on earnings (presented in **Exhibit III.1**), however, the indirect effects on earnings varied across states, ranging from 43 to 113 percent of the direct effect on earnings. This occurs because the size of the multiplier effect depends on the percentage of the AbilityOne income generated that is spent on the domestic economy, which can vary by state and by industry or line of business. Delaware and Arkansas experience the lowest indirect effects on earnings relative to the size of their direct effects on earnings, and California and Florida experience the largest indirect effects relative to the size of their direct effects on earnings.

Exhibit IV.1. Indirect effects on earnings by state under the lower and upper bound scenarios

State	Indirect effects on earnings: Lower bound	Indirect effects on earnings: Upper bound	State	Indirect effects on earnings: Lower bound	Indirect effects on earnings: Upper bound
AK	$119,019	$593,509	KS	$44,808	$890,339
AL	$4,705,441	$10,779,824	KY	$173,374	$2,352,013
AR	$71,877	$561,604	LA	$66,143	$608,073
AZ	$2,815,464	$4,375,674	MA	$580,288	$1,723,329
CA	$29,628,155	$59,854,946	MD	$1,805,535	$11,695,750
CO	$690,459	$3,903,569	ME	$23,729	$629,162
CT	$3,254,237	$12,705,783	MI	$5,458,242	$25,307,540
DC	$669,078	$8,926,831	MN	$442,618	$1,343,661
DE	$44,096	$353,875	MO	$928,733	$1,939,529
FL	$11,964,663	$51,393,742	MS	$122,727	$414,892
GA	$2,140,890	$9,456,761	MT	$22,103	$84,090
HI	$150,980	$1,652,476	NC	$1,310,702	$5,683,382
IA	$100,329	$348,019	ND	$10,260	$261,088
ID	$20,143	$330,314	NE	$23,966	$784,301
IL	$3,983,069	$10,006,443	NJ	$1,420,355	$3,190,892
IN	$300,122	$3,428,823	NM	$1,091,894	$3,271,563

State	Indirect effects on earnings: Lower bound	Indirect effects on earnings: Upper bound
NV	$89,204	$1,264,606
NY	$3,223,812	$12,029,840
OH	$1,827,583	$5,402,538
OK	$646,030	$2,807,296
OR	$1,016,812	$1,712,467
PA	$2,325,820	$8,719,924
SC	$1,562,088	$2,901,335
SD	$44,186	$944,065
TN	$465,790	$1,038,090
TX	$35,520,694	$72,616,483
UT	$61,453	$1,707,283
VA	$13,510,656	$51,306,054
WA	$12,316,130	$29,385,374
WI	$4,535,692	$7,048,931
WV	$27,102	$550,061
WY	$10,925,244	$15,273,838

Source: Authors' analysis of Employee Research System, Quarterly Employment Report, Rehabilitation Services Administration's Case Service Report, and American Community Survey data and IMPLAN software.

Note: Indirect impacts represent the increases in earnings from the rise in economic activity resulting from increased employment for people with disabilities. The lower bound scenario assumes high employment rates among AbilityOne workers in absence of the program, and the upper bound scenario assumes low employment rates in absence of the program.

V. The AbilityOne Program's Return on Investment

We calculated the return on investment for every dollar spent on the AbilityOne Program. Based on the *direct* effect estimates, **the AbilityOne Program generates $0.75 to the federal government for every dollar spent on the program at the lower bound and $3.87 to the federal government for every dollar spent at the upper bound**. Therefore, at the midpoint of this range, the program generates $2.31 for every dollar spent. If we incorporate estimates of increased federal tax revenues from the program's multiplier effects on the surrounding economy into the return-on-investment calculation (the *indirect* effects), these estimates **range from $0.93 per federal dollar spent (lower bound) to $4.40 per federal dollar spent (upper bound) and equal $2.66 at the midpoint**

Although the AbilityOne Program might generate large benefits to the federal government, there is a cost associated with administering the program. One way that costs of AbilityOne contracting differ from a free market competition is through the presence and services of SourceAmerica and NIB as well as the U.S AbilityOne Commission.[8] SourceAmerica and NIB provide a valuable service by helping NPAs and the federal government identify contracting opportunities, working to add items to the procurement list, and negotiating prices. For this reason, one estimate of the additional cost of contracting under the AbilityOne Program is SourceAmerica and NIB's program fee revenues and the operating costs of the AbilityOne Commission.[9]

To calculate the return on investment, we combine estimates for the lower and upper bound direct effects with the program's costs. In 2021, SourceAmerica recovered about $98.2 million in program fees, and NIB recovered $30.5 million.[10] The U.S. AbilityOne Commission's appropriated budget in 2021 was $10.5 million.[11] We aggregated these three cost categories and estimated that total annual additional costs of contracting and program administration were $139.1 million. Together with our upper bound savings estimates of $538.3 million across SourceAmerica and NIB, this suggests that the program generates $3.87 for every $1 spent, representing a positive return on investment under the upper bound. Under the lower bound, we estimated that program-wide savings are $104.9 million dollars across SourceAmerica and NIB, which is lower than our estimates of the additional costs of contracting and program administration (which total $139.1 million). Nevertheless, our lower bound estimate implies that government recovers $0.75 for every dollar spent on the program. Neither the lower bound or upper bound is a realistic estimate of actual impact or return on investment but given the large disparity in actual employment rates of people with and without disabilities, and the high threshold for eligibility for the AbilityOne Program, the actual return on investment is likely closer to the upper bound estimate than the lower bound estimate.

These return-on-investment estimates are based on the direct impacts of the AbilityOne Program (that is, dollars generated to the federal government from the increased tax revenues and lower benefit payment

[8] The U.S. AbilityOne Commission, an independent federal agency, administers the AbilityOne Program based on agreements with SourceAmerica and NIB.

[9] It is possible that the federal government pays higher prices for products and services under the AbilityOne program than it would under a fully competitive procurement setting. Our cost estimates could therefore underestimate the true costs of the program. On the other hand, SourceAmerica and NIB also invest in innovations not directly related to federal procurement, some of which might have been funded by the government in the absence of the AbilityOne program. Therefore, their fee revenues could overestimate the additional costs of contracting because of the program.

[10] We obtained program fee revenues from SourceAmerica and from NIB.

[11] We use this value as an estimate of the Commission's operating costs in 2021.

amounts to AbilityOne workers who would otherwise not have been employed or who would have been employed but earning a lower wage). We also estimated return on investment after incorporating dollars generated to the federal government that came as a result of the multiplier effects of the AbilityOne Program (indirect impacts) in addition to the dollars from the direct impacts. When an AbilityOne contract increases employment in a region, the additional household spending and business-to-business purchases generated from the increase in employment creates more jobs and income. The creation of these jobs represents a benefit to the federal government because it increases federal tax revenues. Using IMPLAN, we obtained estimates of the additional incomes generated from the multiplier effects of an increase in employment as well as the federal tax revenues these additional incomes generate. Incorporating these estimates (the indirect impacts) into the return-on-investment leads to the AbilityOne Program generating $0.93 (lower bound) to $4.40 dollars (upper bound) to the federal government for every dollar spent on the AbilityOne Program, or a midpoint of $2.66 for every dollar spent.

VI. Discussion

This report summarizes the evaluation findings from a study investigating the economic impacts of the AbilityOne Program by considering and then simulating outcomes for two scenarios in which the program did not exist: one in which current workers have much lower rates of employment and a second in which they maintain relatively high rates of employment. We estimated dollars generated to the federal government in terms of increased federal tax revenues and lower public benefit program payments. The evaluation also examined impacts among different subgroups of workers by race, primary disability, state, and work location among other factors. We conducted these subgroup analyses for workers on AbilityOne contracts facilitated by SourceAmerica for whom we have individual-level demographic information. Finally, we investigated the multiplier effects of increased employment through the AbilityOne Program in terms of additional jobs created and additional federal tax revenue generated.

Estimated direct benefits to the federal government resulting from AbilityOne Contracts facilitated by SourceAmerica ranged from $103.7 million (lower bound) to $516.6 million (upper bound) annually. The analogous estimates for AbilityOne contracts facilitated by NIB ranged from $1.2 million (lower bound) to $21.7 million (upper bound). Direct benefits to the federal government were largest in Texas, Virginia, and California, which were among the states with the greatest number of workers according to SourceAmerica's ERS data. The AbilityOne Program also generated significant benefits to the federal government in terms of indirect impacts. The additional jobs via multiplier effects in the local economy generated between $24.8 million (lower bound) and $73.5 million (upper bound) in additional tax revenues.

Finally, because potential benefits to the federal government should be considered against the costs of the program, we calculated an estimated return on investment of the program. Based on the direct impacts of the program, we estimated that the AbilityOne Program generates $0.75 to $3.87 to the federal government for every dollar spent on the program. Most of the range between the lower and upper bound represents a positive return on investment. At the midpoint of our direct benefit estimates, the AbilityOne generates a positive return on investment of $2.31 dollars to the federal government for every dollar spent on the program. If we incorporate estimates of increased federal tax revenues from the program's multiplier effects on the surrounding economy (the indirect impacts), the total return on investment ranges from $0.93 per federal dollar spent (lower bound) to $4.40 per federal dollar spent (upper bound). Although the lower bound estimates do not represent a positive return on investment, they nevertheless imply that the federal government recovers more than 90 cents of each dollar spent on the program. The midpoint of the range incorporating direct and indirect benefits is $2.66 dollars for every dollar spent on the program.

Relative to SourceAmerica's 2016 study, the upper bound estimate of the program impact is larger, and the lower bound estimate is smaller.[12] These differences reflect our refinement of methods and several changes in the economic and policy environment since 2016. The previous analyses assumed that, in scenarios in which the AbilityOne Program did not exist, the employment rate would be a function of workers' productivity. Workers employed under Section 14(c) were assigned a probability of employment equal to their productivity value as recorded in the ERS data. In the past decade, calls to phase out the use of 14(c) certificate employment have meant that much fewer AbilityOne workers are employed under 14(c). In 2022, most workers in the ERS were not paid under 14(c) and thus had no productivity data. We

[12] In the analyses based on 2016 data, the benefits to the federal government from AbilityOne contracts facilitated by SourceAmerica ranged from $176 million (lower bound) to $359 million (upper bound).

therefore used a different approach to estimate employment rates in scenarios in which the AbilityOne Program did not exist, relying on empirical information on employment rates in similar populations.

The previous analyses also assumed that that employees who would be working even in the absence of the program would earn the same wage as they earned under the program. In this analysis, we relaxed this assumption because a greater share of AbilityOne workers are earning well above the minimum wage. We wanted to incorporate the possibility that the AbilityOne Program could be paying higher wages to people with significant disabilities (and people who are blind) than the jobs in which they would be working if the program did not exist. We used information from the American Community Survey to estimate wages for people with significant disabilities, by state, and we assigned these wages to people who would have worked in the absence of the program (see the appendix for more details).

There have also been several changes in the economic and policy environment since 2016 that might have changed the potential benefits of AbilityOne Program. The COVID-19 pandemic, inflation, wage increases, and a tighter employee market—as well as policy changes such as the continued phase-out Section 14(c) certificate employment by NPAs described above and the establishment of a minimum wage of $15 an hour in January 2022[13] for federal contractors in service jobs—likely had a large influence on the economic impacts of the program.

Our study had several limitations. First, to generate estimates of the impact of the program, we had to make assumptions about AbilityOne workers' employment rates if the AbilityOne Program did not exist. Our estimates are valid only to the extent that these assumptions are true. We present estimates using the most and the least conservative assumptions, providing bounds for where the true impact likely lies. Second, because submission to the ERS is voluntary, we developed weights based on the characteristics of included versus excluded NPAs to make the data representative of all AbilityOne contracts. About 60 percent of NPAs submit data to the ERS, and these data represent about 75 percent of all workers on AbilityOne contracts facilitated by SourceAmerica. To the extent that NPAs who do not submit information to the ERS have different employee populations to those that do, the weighted sample might not accurately reflect the demographic characteristics of all AbilityOne workers on contracts facilitated by SourceAmerica. Third, we used the Rehabilitation Services Administration Case Service Report data to estimate public benefit receipt rates among AbilityOne workers on contracts facilitated by SourceAmerica because the ERS data do not contain information on receipt rates. We used an algorithm to match ERS workers with the people in the Rehabilitation Services Administration Case Service Report data. To the extent that these two populations differ from one another in ways we can't observe and control for, our estimated benefit receipt rates might not be accurate.

Despite these limitations, our methodological approach is founded on (1) leveraging all the information available and (2) using empirical data on the employment, wages, and public benefit receipts among similar populations to generate estimates of the benefits to the federal government as a result of the AbilityOne Program.

[13] Executive Order 14026 of April 27, 2021. Available at: https://www.federalregister.gov/documents/2021/04/30/2021-09263/increasing-the-minimum-wage-for-federal-contractors. The minimum wage is adjusted annually for inflation.

Appendix

I. Data Sources and IMPLAN Software

The economic impact analysis relied on a variety of data sources, including employee-level and nonprofit-level information provided by SourceAmerica and National Industries for the Blind (NIB) and publicly available survey and administrative data on people with disabilities. In addition, we used IMPLAN software to estimate the multiplier effects of the AbilityOne Program on the local economy. IMPLAN is a modeling system that uses annual regional data to simulate and map how changes in a specific industry can affect the local economy. In the following sections, we describe each data source and the IMPLAN software in further detail.

A. Data from SourceAmerica and NIB

The economic impact study used quantitative administrative data from SourceAmerica's Quarterly Employment Report (QER) and Employee Research System (ERS) databases as well as from NIB's Quarterly Data Reporting (QDR) database and the 2018 employee survey. We used data from the most recent four quarters: the third and fourth quarter of 2021 and the first two quarters of 2022. The QER and QDR provide aggregate information for each member agency, such as total employees, sales, wages, and hours worked.

SourceAmerica's ERS collects information about individual employees at a member agency, including their wages; hours; whether they are employed under a Section 14(c) certificate; and, if so, their productivity rating. Because submitting data to the ERS is voluntary and not all member agencies participate, we used the QER to assign weights to employees in the ERS data to make them representative of all AbilityOne employees and not just those working at NPAs that submitted ERS data.

NIB's survey data collects information about employees' demographics (such as gender, age, and race), hourly pay, hours worked, and public benefit receipt from a representative sample of employees working in contracts facilitated by NIB who were surveyed in 2018.

In collaboration with SourceAmerica, we defined inclusion criteria to identify the sample of ERS workers (**Exhibit A.1**). The criteria largely relate to dropping person-quarter records with incomplete information or anomalous values that are likely data entry errors, such as extremely high quarterly compensation, hourly wages that are lower than the federal minimum wage among employees not paid under 14(c) and working more than 50 hours a week on average throughout the quarter, among other criteria. We also dropped records that were missing information on quarterly hours worked or quarterly wage because we required this information to conduct our analyses. Finally, we limited the analysis sample to workers currently eligible for the AbilityOne Program.

Exhibit A.1. Inclusion and exclusion criteria for ERS workers

Sample	Count	Records dropped
Total observations after stacking	143,439	
Dropped records with non-standard productivity values	143,360	79
Missing ERS identifier	143,078	282
Dropped duplicates	140,654	2,424

Sample	Count	Records dropped
Dropped records for which ProductivityinPrimaryJob is missing or zero and EmployeePaidUnderFLSA14cCer = "Yes"	140,644	10
Dropped records for which PaidAbilityOneHoursinQuarter is missing or zero or AbilityOneCompensationinQuart is missing or zero	101,996	38,648
Dropped records for which PaidAbilityOneHoursinQuarter > 650 hours.	100,345	1,651
Dropped records for which AbilityOneCompensationinQuart > 99th percentile	99,241	1,104
Drop records not paid under 14c with an hourly wage less than 7.25	98,762	479
Subset to where AbilityOneEligibility = “Currently Eligible"	78,730	20,032

ERS = Employee Research System.

B. Rehabilitation Services Administration Case Service Report (RSA- 911) data

The RSA-911 case file data includes information on every person who received services and who exited services from a state vocational rehabilitation agency in a given year. Key information includes a person’s primary impairment; earnings and hours worked at application; the source of referral to vocational rehabilitation; and receipt of Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), and Medicare benefits at application and at case closure. Because the ERS data do not contain information about public program participation (such as SSDI or SSI), we used the RSA-911 data to estimate benefit receipt among AbilityOne employees working on SourceAmerica contracts.

The RSA-911 is one of the best available sources for estimating benefit receipt among AbilityOne employees. Similar to AbilityOne employees, vocational rehabilitation applicants are interested in work, making them more similar to AbilityOne employees than the general population of adults with disabilities. The RSA-911 data allow for stratification by type of disability. Because a disproportionately large number of AbilityOne employees have intellectual disabilities, and because benefit receipt rates vary by type of disability, stratifying by diagnosis is important for estimating rates of benefit receipt. Finally, the RSA-911 data are a large sample covering about 500,000 people, one-sixth of whom were employed at application providing an adequate sample size for. The sample should therefore be adequate for estimating benefit receipt rates by demographic groups. We used the most recent year of RSA-911 data available (2021) to ensure that the time period aligns as closely as possible to the ERS data.

C. Publicly available national survey data and published statistics

We used publicly available survey data on program information and tax calculator tools. In particular, we used the Integrated Public Use Microdata Series version of the 2021 American Community Survey (ACS) to estimate the likelihood of Supplemental Nutrition Assistance Program (SNAP) receipt and benefit amounts condition on receipt, which the RSA-911 data do not report. We also used Integrated Public Use Microdata Series ACS data to estimate employment rates and wages by type of work among working age populations with significant disabilities. Finally, we used published statistics on average Medicare expenditures for workers younger than age 65 to estimate Medicare expenditures conditional on Medicare enrollment.

D. IMPLAN software

We used IMPLAN software to estimate the multiplier effects of the AbilityOne Program on the local economy. IMPLAN can provide estimates of (1) the total output generated as a result of every dollar of output in the industry of study, (2) the total number of jobs created as a result of a single job in the

industry of study, and (3) the total labor income generated as a result of a dollar increase in income in the industry of study.

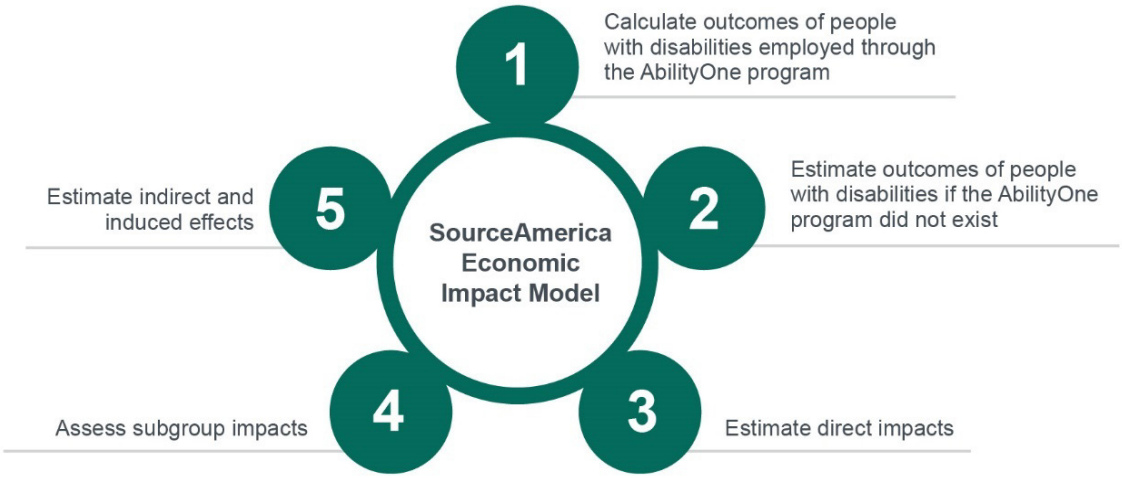
II. Methods

The economic impact analysis had two aims:

- To understand the impacts of the AbilityOne Program on the employment and earnings of people with disabilities (as well as the potential savings for the federal government)
- To understand the multiplier effects of increases in employment because of the AbilityOne Program on local economies through newly created jobs, income, and tax revenue

We estimated the direct impacts on employment and earnings as well as the potential savings for the federal government using SourceAmerica data, NIB data, and external survey and administrative data, and we estimated multiplier effects through IMPLAN. Using a stepwise approach, we calculated the impact of the AbilityOne Program on employment, public benefits, tax revenues, and Medicare expenditures. We did so by subtracting hypothetical estimates of these measures (derived from a counterfactual scenario in which the AbilityOne Program did not exist) from these measures among AbilityOne employees (**Exhibit A.2**).

Exhibit A.2. A five-step approach to calculate the economic impacts of the AbilityOne Program



An important caveat is that this study was non-experimental (that is, the opportunity to work in an AbilityOne nonprofit agency [NPA] was not randomized across people with disabilities). The analytic strategy for identifying the effects of the AbilityOne Program relied on comparing the outcomes of AbilityOne employees with those of similar populations and making evidence-based assumptions about counterfactual outcomes (in other words, what the outcomes would be in the absence of the program). It is possible that AbilityOne employees differed from these comparison populations in ways we cannot observe, so the assumptions we used to impute the counterfactual outcomes might not be fully accurate. Therefore, our estimates of the direct and indirect effects of the AbilityOne Program provide only descriptive, rather than causal, evidence of the program's impacts.

Here, we describe the specific steps of our analytical approach.

Step 1. Calculate the employment, benefit receipt, and tax revenue outcomes of people with disabilities employed through the AbilityOne Program

We obtained information about the employment and earnings of AbilityOne employees from the ERS data for people employed on contracts facilitated by SourceAmerica and the QDR for people employed on contracts facilitated by NIB (in aggregate). Submitting data to the ERS is voluntary, so NPAs that provided ERS data might not be representative of all AbilityOne NPAs. To correct for this sample bias, we developed and applied weights using information on all NPAs available from SourceAmerica's QER data. These weights adjusted the ERS data to make them representative of the full universe of SourceAmerica NPAs. The weights were based on NPAs' size, contract type, and total sales. For example, if small NPAs (in terms of sales) are underrepresented in the ERS data, employees in the ERS who are employed in small NPAs receive relatively larger weights. We then assigned each worker the associated NPA's weight.

For people employed through the AbilityOne Program on contracts facilitated by SourceAmerica, we estimated the rate at which they received public benefits using RSA-911 data. Although the ERS data provide rich information on individual employees, such as age, race and ethnicity, primary and secondary disability, and employment information, it does not contain data on AbilityOne employees' participation in public programs such as SSI, SSDI, and SNAP. To estimate benefit receipt, we used coarsened exact matching to identify a sample of RSA-911 employees who are similar to AbilityOne employees. Coarsened exact matching is a matching algorithm that first coarsens population characteristics into discrete bins[14] and then performs exact matching.[15] In the matching algorithm, we used population characteristics including age, gender, primary disability, hours worked, an indicator for earnings above or below substantial gainful activity, and state. After we identified a matched sample of RSA-911 employees, we assigned AbilityOne employees probabilities for receiving SSI and SSDI benefits based on information from this matched sample. We used RSA-911 data to estimate rates of SSI and SSDI benefit receipt and ACS data to estimate rates of SNAP receipt (because information on SNAP benefit receipt is not available in the RSA-911). We then used program rules on benefit phaseout to estimate expenditure levels for SSDI, SSI, and SNAP.

For NIB NPA employees, we used data from the 2018 NIB employee survey on earnings and receipt of SSI, SSDI, and SNAP. We applied public benefit program rules to estimate benefit amounts for employees who reported receiving benefits.

Finally, we used the tax calculator from the National Bureau of Economic Research to estimate the levels of federal income and Federal Insurance Contributions Act taxes paid by each AbilityOne employee. For NIB, we estimated average taxes using average earnings from the QDR. The National Bureau of Economic Research tax calculator uses a worker's total income and other characteristics, such as state of residence, marital status, age and public benefit amounts received, to estimate taxes. For each employee, we input all available information from SourceAmerica's ERS data to the tax calculator. We included the employers' contribution to Federal Insurance Contributions Act (FICA) taxes to most accurately reflect the total payments to the federal government resulting from each individual's employment.

We assumed employees were filing individually because the ERS does not contain information on marital status, a required input variable for the tax calculator, and because the QDR does not contain

[14] For example, the continuous variable age can be coarsened into several bins, such as five-year bins.
[15] Exact matching is a technique that links each unit to all possible units with exactly the same values on all characteristics.

individual-level information. We used the 2019 tax schedule because it was the latest year available that was unaffected by changes in federal liabilities resulting from the COVID-19 pandemic. In particular, in 2020 and 2021, the government issued several stimulus payments that are reflected as a lower (and sometimes negative) federal tax liability for those years. The average federal income tax rate for AbilityOne employees was about 5 percent, reflecting the low marginal tax rates faced by low-income workers.[16] Total FICA taxes were 15.3 percent (of which 7.65 percent represent the employer's contribution).

Step 2. Estimate outcomes of people with disabilities if the AbilityOne Program did not exist

The second step of our analysis was to estimate counterfactual outcomes of AbilityOne employees if the AbilityOne Program did not exist. We cannot attribute all the employment and earnings from AbilityOne contracts as the impact of the program because some employees would be employed elsewhere if the program did not exist. To estimate a counterfactual model of outcomes for employees if the program did not exist, we estimated AbilityOne employees' likelihood of employment using information on their productivity from the ERS as well as the employment rate of people with significant disabilities in the ACS.[17] Specifically, we assumed that an employee's likelihood of employment without the AbilityOne Program is roughly equal to the employment rate of people with disabilities in the employee's state, scaled by the employee's productivity. For example, if an employee had 100 percent productivity, we assumed that their likelihood of employment without the AbilityOne Program equals the employment rate of people with disabilities in their state. If the employee's productivity was 50 percent, then their counterfactual likelihood of employment would be 0.5 multiplied by the employment rate of people with disabilities. We assumed that employees who are not paid under Section 14(c) certificates (and for whom we do not have information on productivity) have a productivity level of 100 percent. For NIB, we assigned the employment rate observed among people with severe visual impairments[18]. We refer to this counterfactual scenario as Scenario 1.

This calculation might underestimate an AbilityOne employee's likelihood of working without the program. By virtue of being employed, AbilityOne employees might not be representative of all people with disabilities. They might have more motivation to work or a greater capacity for working, so their likelihood of employment could be quite high even without the AbilityOne Program. We therefore generated a second set of counterfactual estimates in which we assumed that the AbilityOne employees' likelihood of employment equals their productivity multiplied by the overall employment rate in their state (that is, not restricting the rate to people with disabilities). We obtained information about state-level employment rates from the U.S. Bureau of Labor statistics.[19] We refer to this counterfactual scenario as Scenario 2.

[16] Some employees even experienced negative income taxes because their incomes were low enough to qualify them for the Earned Income Tax Credit.

[17] We estimated employment rates among people in the ACS who reported two or more of the following: cognitive difficulties, ambulatory difficulties, independent living difficulties, self-care difficulties, vision difficulties, or hearing difficulties. The standard definition of disability using ACS data is the reporting of at least one of the listed difficulties. Therefore, our definition will tend to capture people with more significant disabilities.

[18] We obtained these estimates from the National Health Interview Survey – Disability Supplement (NHIS-D), however estimates among the same population based on the National Health and Nutrition Examination Survey (NHANES) are very similar; McDonnall MC, Sui Z. Employment and Unemployment Rates of People Who Are Blind or Visually Impaired: Estimates from Multiple Sources. Journal of Visual Impairment & Blindness. 2019;113(6):481-492.

[19] See https://www.bls.gov/news.release/laus.t01.htm.

For both scenarios, we used the ACS's earnings information for people with disabilities to impute SourceAmerica employee earnings in the counterfactual scenario among employees who worked in the counterfactual scenario. In particular, we estimated average earnings for people with significant disabilities in each state and type of work and assigned these averages to SourceAmerica NPA employees in the counterfactual scenario depending on their state and line of business.[20]

Doing so required us to develop a mapping from line of business to ACS occupation codes. **Exhibit A.3** provides this mapping.

Exhibit A.3. Mapping line of business to ACS occupation codes

Line of business	Occupation code
Administrative/Clerical	**5740** (Secretaries and administrative assistants, except legal, medical, and executive) or **5400** (Receptionists and information clerks)
Assembly/Manufacturing	**7720** (Electrical, electronics, and electromechanical assemblers) or **7730** (Engine and other machine assemblers) or **7750** (Other assemblers and fabricators)
Call Centers	**5240** (Customer service representatives)
Document Management, Incl. Mail Centers	**5560** (Postal service mail sorters, processors, and processing machine operators) or **5850** (Mail clerks and mail machine operators, except postal service)
Facilities Management, Grounds Maintenance and Janitorial	**4220** (Janitors and building cleaners) or **4251** (Landscaping and groundskeeping workers) or **4255** (Other grounds maintenance workers)
Food Service/Catering/Restaurant	**4030** (Food preparation workers) or **4055** (Fast food and counter workers) or **4120** (Food servers, nonrestaurant) or **4130** (Dining room and cafeteria attendants and bartender helpers) or **4140** (Dishwashers)
IT Services	**5810** (Data entry keyers) or **4940** (Telemarketers)
Laundry	**8300** (Laundry and dry-cleaning workers)
Packaging	**9640** (Packers and packagers, hand)
Recycling or Document destruction	**9720** (Refuse and recyclable material collectors)
Vehicle And Fleet Maintenance/Mgmt	**7200** (Automotive service technicians and mechanics)
Warehousing/Shelf Stocking	**9645** (Stockers and order fillers)

Because we didn't have individual-level information for NIB NPA employees (such as the state they worked in or their line of business), we assumed that NIB NPA employees who worked in the counterfactual scenario earned the same wage that they earned working under the AbilityOne Program.

[20] In cases when the average wage obtained from the ACS was higher than the wage earned by the AbilityOne employee while working on AbilityOne contracts, we assumed that the wage earned by the employee in the counterfactual scenario equaled the wage they earned while working under the AbilityOne Program. We made this assumption because economic theory presumes that, in general, workers will always choose the job that will pay them the highest wage. Therefore, it shouldn't be the case that AbilityOne employees working under the AbilityOne Program have outside options that would pay them a higher wage.

To estimate counterfactual benefit receipt rates, we used coarsened exact matching to identify a sample with similar characteristics to those of the AbilityOne employee sample but with lower employment rates in the counterfactual scenarios.[21] After we identified RSA-911 matched samples for the counterfactual scenarios, we generated estimates for SSI, SSDI, SNAP, and federal tax revenues using the same approach described in Step 1.

Step 3. Estimate direct impacts

Finally, we subtracted the estimated outcomes under the counterfactual scenario (developed in Step 2) from the estimated outcomes of AbilityOne employees (developed in Step 1) to obtain an estimate of the AbilityOne Program's impact on employment, tax revenues, public benefit receipt, and Medicare expenditures.

Step 4. Assess subgroup impacts of the AbilityOne Program

We developed an analytic tool that allow users to view direct impacts by the following subgroups:

- **Demographic characteristic and geographic subgroups.** This includes age, gender, and race and ethnicity. These estimates provide SourceAmerica, NIB, and their partners with a better understanding of the employee subpopulations most affected by the program, how effects vary by employee characteristics, and whether impacts differ by demographic subgroups. Users can also view impacts by state.
- **Work location.** Through contracts across several hundred NPAs, AbilityOne employees serve a variety of federal customer groups. Users can view impact estimates by work locations (for example, specific Air Force).

Step 5. Estimate indirect impacts

The AbilityOne Program could have impacts beyond the direct employment effects for people with disabilities and the associated savings to state and federal governments (which we estimated in Step 3). For example, the increase in employment from the AbilityOne Program leads to an increase in those people's earnings (and hence demand for goods and services), which leads to greater production to meet this demand and translates into jobs created in the community. This phenomenon is known as the multiplier effect. Specifically, in addition to the direct effects of an increase in employment for AbilityOne employees, there might also be indirect effects in the surrounding economy. These effects represent the effects on business-to-business purchases resulting from increased employment in a particular industry as well as the impacts of increased household spending.

We used the IMPLAN software to estimate the indirect effects of a change in employment as a result of the program overall and by state. To estimate indirect impacts at the state level, we uploaded the direct

[21] In particular, among the employees who do not work in the counterfactual scenario, we imputed new benefit receipt probabilities by matching them with the sample of RSA-911 people who worked few hours using the matching algorithm and matching covariates described above. We don't use the sample of RSA-911 people who do not work at all; we find that this sample of people has low benefit receipt rates relative to those who work few hours. This is likely because many RSA-911 people who don't work do not have a sufficient work history to be eligible for benefits. Because most AbilityOne workers who are not working in the counterfactual scenario likely have a work history that would qualify them for benefits if they met other eligibility criteria, we match them with the sample of RSA-911 people who work few hours to estimate their benefit receipt rates among people not working in the counterfactual scenario.

impacts of the AbilityOne Program in terms of increased wages at the level of the state and industry type and used the software to conduct an industry impact analysis.

As part of the industry impact analysis, users must specify the IMPLAN industry code for "event" or the direct increase in employment whose indirect impacts users would like to estimate. IMPLAN uses its own industry classification scheme, which has 546 categorizations that group industries with similar spending patterns together. IMPLAN also provides a crosswalk for North American Industry Classification System (NAICS) to IMPLAN industry codes. To assign lines of business from the ERS data to IMPLAN industry indicators, we first used the line of business to NAICS crosswalk provided by SourceAmerica to assign each line of business a NAICS code. Most lines of businesses map to multiple NAICS codes. In these instances, we used the NAICs code considered most typical. After assigning each line of business a NAICS code, we identified the IMPLAN industry codes that mapped to these NAICS codes and used these codes in our IMPLAN analyses. **Exhibit A.5** shows the mapping from line of business to NAICS code and to IMPLAN industry indicator. Using industry and state-specific multipliers, the software generated estimates of the indirect impacts of the program in each state. We conducted this analysis for both Scenario 1 and 2.

Exhibit A.4. Crosswalk from line of business to NAICS code to IMPLAN industry indicator

Line of business	NAICS codes	Most typical NAICS code	IMPLAN indicator	IMPLAN indicator description
Administrative/Clerical	561110 Office Administrative Services 561990 All Other Support Services 561449 All Other Business Support Services 561320 Temporary Help Services 561410 Document Preparation Services 561439 Other Business Support Service	561110	470	Office administrative services
Call Centers	561421 Telephone Answering Services 561422 Telemarketing Bureaus & Other Contact Centers 519190 All Other Information Services	561421	473	Business support services
Document Destruction	561990 All Other Support Services (Document Destruction)	561990	478	Other support services
Document Management, Incl. Mail Centers	518210 Data Processing, Hosting and Related Services 519120 Libraries and Archives 493190 Other Warehousing & Storage (Documents) 561439 Other Business Service Centers (including Copy Shops) 519190 All Other Information Services 491110 Postal Service 492110 Couriers & Express Delivery Services 492210 Local Messengers & Local Delivery 511199 All Other Publishers 561431 Private Mail Centers 561499 All Other Business Support Services	561431	473	Business support services
Facilities Management	561210 Facility Support Services 561790 Other Services to Buildings & Dwellings 812930 Parking Lots and Garages (Valet Services) 812990 All Other Personal Services (Restroom Operation, Check Room Operation) 541330 Engineering Services	561210	471	Facilities support services
Food Service/Catering/Restaurant	722310 Food Service Contractors 722320 Caterers 722511 Full-Service Restaurants 722513 Limited-Service Restaurants 722514 Cafeterias, Grill Buffets & Buffets	722514	511	All other food and drinking places

Line of business	NAICS codes	Most typical NAICS code	IMPLAN indicator	IMPLAN indicator description
Grounds Maintenance/Landscaping	561730 Landscape Services	561730	477	Landscape and horticultural services
IT Services	518210 Data Processing, Hosting & Related Services 541513 Computer Facilities Management Services 541519 Other Computer Related Services	518210	436	Data processing, hosting and related services
Janitorial/Custodial	561720 Janitorial Services	561720	476	Services to buildings
Laundry	812320 Dry-Cleaning & Laundry Services 812331 Linen Supply 812332 Industrial Launderers	812320	519	Dry-cleaning and laundry services
Packaging	488991 Packing and Crating 561910 Packaging & Labeling Services	561910	478	Other support services
Recycling	562920 Materials Recovery Facilities (MRF) 562111 Solid Waste Collection	562920	479	Waste management and remediation services
Vehicle And Fleet Maintenance/Mgmt	811111 General Automotive Repair 811113 Automotive Transmission Repair 811121 Automotive Body, Paint & Interior Repair 811192 Car Washes 811198 All Other Automotive Repair & Maintenance	811192	513	Car washes
Warehousing/Shelf Stocking	493110 General Warehousing & Storage 493190 Other Warehousing & Storage 561990 All Other Support Services (Inventory Tracking & Computing Services) 334419 UID/RFID Labeling 333922 Warehouse Equipment & Supplies	493110	422	Warehousing and storage
Assembly/Manufacturing	326220 Rubber & Plastics Hoses & Belting Mfg 326112 Plastics Packaging Film & Sheet (including Laminated) Mfg 326199 All Other Plastics Product Mfg 326111 Plastics Bag & Pouch Mfg 325992 Photographic Film, Paper, Plate & Chemical Mfg 325612 Polish & Other Sanitation Good Mfg 325611 Soap & Other Detergent Mfg 325520 Adhesive Mfg 332216 Saw Blade & H & tool Mfg 332999 Metal Pallets 332215 Metal Kitchen Cookware, Utensil, Cutlery,& Flatware (except Precious) Mfg	315990	128	Apparel accessories and other apparel manufacturing

Line of business	NAICS codes	Most typical NAICS code	IMPLAN indicator	IMPLAN indicator description
	339112 Surgical & Medical Instrument Mfg 339113 Surgical Appliance & Supplies Mfg 311423 Non-Perishable Foods 335911 Batteries 335210 Small Electrical Appliance Mfg 334112 Computer Storage Device Mfg 333318 Other Commercial & Service Industry Machinery Mfg 333999 All Misc. Manufacturing 339999 Flags, Banners, Pennants 324191 Petroleum Lubricating Oil & Great Mfg 322220 Paper Bag & Coasted & Treated Paper Mfg 322211 Corrugated & Solid Fiber Box Mfg 322121 Paper (except Newprint) Mills 321920 Wood Container & Pallet Mfg 316998 All Other Leather Good & Allied Product Mfg 315210 Cut & Sew Apparel Contractors 315990 Apparel Accessories & Other Apparel Mfg 339920 Sporting & Athletic Goods Manufacturing			

NAICS = North American Industry Classification System.

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