Estimating Job Corps Cost per Enrollee and Cost per Graduate

insight
POLICY RESEARCH

June 12, 2020

Authors

Albert Y. Liu, Clayton Perry, Robbie Skinner, and Scott Cody

Contents

Tables

Figures

Abstract

Administered by the U.S. Department of Labor (DOL), the Job Corps program trains approximately 60,000 participants on workforce skills in a residential environment each year. The Workforce Innovation and Opportunity Act requires DOL to present the cost per enrollee and cost per graduate of each Job Corps center every year. This report presents the methodology used to estimate cost per enrollee and cost per graduate for program year 2017. The average Job Corps center cost is $34,301 per enrollee and $57,312 per graduate.

1. Introduction

J ob Corps is the Nation's largest residential education and job training program for at-risk youth.[1] Authorized by the Workforce Innovation and Opportunity Act (WIOA), Job Corps received $1,704,155,000 in appropriations in program year (PY) 2017 to provide services to about 60,000 participants (DOL [U.S. Department of Labor], 2019).[2]

Job Corps operations occur at the national, regional, and center levels. As part of DOL's Employment and Training Administration (ETA), the Office of Job Corps (OJC) oversees the Job Corps program at the national level. It sets program policy and requirements and oversees contracting service delivery with national training contractors (NTCs) (Berk et al., 2018). At the regional level, regional Job Corps offices oversee local contractors and monitor compliance with policy and regulations. At the center level, about 124 Job Corp centers, outreach and admissions (OA) providers, and career transition services (CTS) providers offer services directly to at-risk youth.

Under WIOA, ETA is required to report performance measures in an Annual Report for Job Corps. Performance measures are required for the overall program and for individual centers, OA providers, and CTS providers. Two key WIOA performance measures include:

▸ **Costs per enrollee**, to be calculated as the ratio of the total budget to the number of enrollees

▸ **Costs per graduate**, to be calculated as the ratio of the total budget to the number of graduates

Although the high-level descriptions of these measures are straightforward, each rate can be calculated in many ways. Job Corps costs fall into three categories: (1) operations; (2) construction, rehabilitation, and acquisition (CRA); and (3) administration. The data used to track these costs—and the data used to track enrollees and graduates—come from multiple sources, each used for different reporting and accounting purposes. As a result, the sources account for costs in different ways and aggregate data at different levels.

This report presents methodology for calculating the rates in a way that meets the WIOA requirements. This approach—referred to as the PY 2017 methodology—seeks to achieve four goals:

▸ **Meet WIOA reporting requirements.** WIOA requires Job Corps costs to per enrollee and graduate to be presented at the center level. This method constructs center level costs that are consistently defined and comparable across centers.

▸ **Result in accurate estimates.** Some assumptions are needed to allocate budget-based costs estimates, and these assumptions may result in inaccuracies. This method seeks to minimize potential inaccuracies.

▸ **Provide transparency to Congress and the American public.** This method aims to minimize complex calculations so the definitions of the performance measures are intuitive to Job Corps staff, stakeholders, and other interested parties.

---

[1] At-risk youth are low income, aged 16–24, deficient in basic skills, and homeless; they have dropped out of school or are in need of education, training, or skills to obtain and retain employment (Berk et al., 2018).
[2] A program year, as defined by the U.S. Department of Education, is July 1 through June 30 of the following year.

▶ **Require minimal computational resources.** This method aims to minimize computational requirements by limiting the number of input data elements and the computational steps to aggregation and allocation.

The PY 2017 methodology consists of two parts. First, the cost of Job Corps at a center is calculated as the sum of center-level expenses, allocated regional expenses, and allocated national expenses. Second, the methodology uses an entry-based definition of enrollees by calculating the number as new enrollments in PY 2017. This approach defines graduates as participants who started in any year, had a final separation date in PY 2017, and met specific graduation requirements.

Under the PY 2017 methodology, the average cost per enrollee for Job Corps as a whole in PY 2017 was $34,301. This cost ranged across centers from $21,920 to $781,087, with a median of $33,651 (see table 1). The average cost per graduate for Job Corps as a whole in PY 2017 was $57,312. This cost ranged across centers from $28,986 to $499,487, with a median of $57,997.

Table 1. Average Cost per Enrollee and Average Cost per Graduate Based on PY 2017 Methodology, PY 2017

Unit of Analysis	Average Cost per Enrollee	Average Cost per Graduate
Job Corps as a whole	$34,301	$57,312
Lowest cost center	$21,920	$28,986
Highest cost center	$781,087	$499,487
Median cost center	$33,651	$57,997

Note: Estimates were derived from information received from ETA OJC, the ETA OJC Job Corps Center Information System, and the ETA Office of Financial Administration's New Core Financial Management System. Estimates include 43,125 enrollees, 25,810 graduates, and 124 centers.

Chapter 2 of this report details the PY 2017 methodology. Chapter 3 discusses future potential refinements that could be made to this methodology. Appendix A details data elements that can be used in constructing the performance measures. Appendix B details alternative specifications of costs per enrollee and costs per graduate that can be used for other management purposes.

2. The PY 2017 Methodology

The PY 2017 methodology calculates cost per enrollee and cost per graduate for each Job Corp center operating in PY 2017. This section explains how costs are determined for each center and how enrollees and graduates are defined for each center. The section then presents the cost per enrollee and cost per graduate for each center.

1. Center Costs

The appropriation for Job Corps—$1,704,155,000 in PY 2017—reflects the funds Congress has allocated overall. Additional data are needed to determine costs at the center levels.

DOL's New Core Financial Management System (NCFMS) database tracks all expenditures from Job Corps funds. These expenditures in NCFMS are automatically recorded when money is drawn from Job Corps and made available to the national office, regional offices, and individual centers. The database also includes expenditures on contracts with OA and CTS providers that can provide services to multiple Job Corps centers in a region.

Using the NCFMS data, the PY 2017 methodology calculates each center's costs as the sum of the following:

- ▸ Total expenditures recorded to each center

- ▸ Total regional expenses—including OA and CTS providers in the region—allocated proportionately to each center in the region based on the number of enrollees

- ▸ Total national expenses plus any other expenses not attributed to a specific center or region allocated proportionately to each center based on the number of enrollees

As a result, this method provides straightforward center-based estimates by starting with center expenditures and then prorating other costs on a per-enrollee basis. See appendix B for a discussion of other approaches to defining costs.

2. Enrollees and Graduates

The number of enrollees at each center can be tracked in various ways. Enrollees can be defined as the total number of enrollees in a given year (including students who enrolled in the previous year), the total number of new enrollees only in a given year, or the average monthly number of training slots available at each center.

The PY 2017 methodology calculates enrollees at each center as the sum of new enrollments in each month between July 2017 and June 2018. This "entry-based" definition is used because it generates consistent statistics across time. This approach offers some advantages over alternative definitions of enrollees:

- ▸ **Cost per enrollee does not depend on the program start date.** Based on the entry-based definition, a center that starts enrollment on the first day of a program year, the last day of a program year, or any day in between will have the same number of enrollees. By contrast, defining enrollees as participants who enrolled at any time in the program year (participant based) would depend on when enrollment starts.

For example, consider Center A, which enrolls 100 people every July 1, and Center B, which enrolls 100 people every January 1. The number of enrollees in the two centers is the same based on the entry-based definition, but by the participant-based definition, there were 100 enrollees in Center A and 200 enrollees in Center B. If the two centers have the same total cost, the cost per enrollee is the same based on the entry-based definition, but the cost per enrollee for Center A will be twice as high as the cost per enrollee for Center B based on the participant-based definition.

▶ **Cost per enrollee reflects the utilization of center training capacity.** By focusing on new enrollments, the entry-based definition ties costs to actual participants the center serves. A potential alternative is to define enrollees by training slots regardless of whether they are used by participants (capacity based).

For example, consider Center A, which enrolls 100 people in 100 training slots, and Center B, which enrolls 100 people in 200 training slots. The number of enrollees in the two centers is the same based on the entry-based definition of enrollees, but there are 100 enrollees in Center A and 200 enrollees in Center B by the capacity-based definition of enrollees. If the two centers have the same total cost, the cost per enrollee is the same based on the entry-based definition, but the cost per enrollee for Center A will be twice as high as the cost per enrollee for Center B based on the capacity-based definition.

Graduates are defined as participants who were enrolled in the Job Corps program for at least 60 days; received a secondary school diploma or a recognized equivalent or completed a career and technical education and training program; and did not separate from the program as a result of a violation of the zero tolerance policy. The PY 2017 methodology calculates graduates as the number of participants who separated from the program between July 1, 2017, and June 30, 2018 and who meet this definition of graduate. Costs per graduate reflect the total costs in a year relative to the number of graduates in a year. It should be noted that, for graduates who enrolled in the prior program year, at least some of the expenses to train them would have been incurred in that prior year (and some of the costs incurred in the current year are for individuals who will graduate in the subsequent year).

3. Costs per Enrollee and Costs per Graduate

Based on the PY 2017 methodology, the average cost per enrollee was $34,301, and the average cost per graduate was $57,312 for Job Corps as a whole in PY 2017. These estimates are based on Job Corps-wide total costs divided by the Job Corps-wide number of enrollees and graduates, respectively. The estimates reflect the total average costs for the program and not the average of the average costs across centers, which would instead give equal importance to centers serving lower numbers of participants and those serving higher numbers of participants.

There is a wide variation in the center average cost per enrollee and the center average cost per graduate. Figure 1 presents the average cost per enrollee at each center, with the centers on the x-axis sorted from lowest to highest average cost. The average cost per enrollee ranges from $21,920 to $781,087, with a median of $33,651. Figure 2 presents the average cost per graduate at each center. The average cost per graduate ranges from $28,989 to $512,596, with a median of $59,863. Table 2 presents the average cost per enrollee and the average cost per graduate for each center.

Figure 1. Average Cost per Enrollee at Centers Based on the PY 2017 Methodology, PY 2017
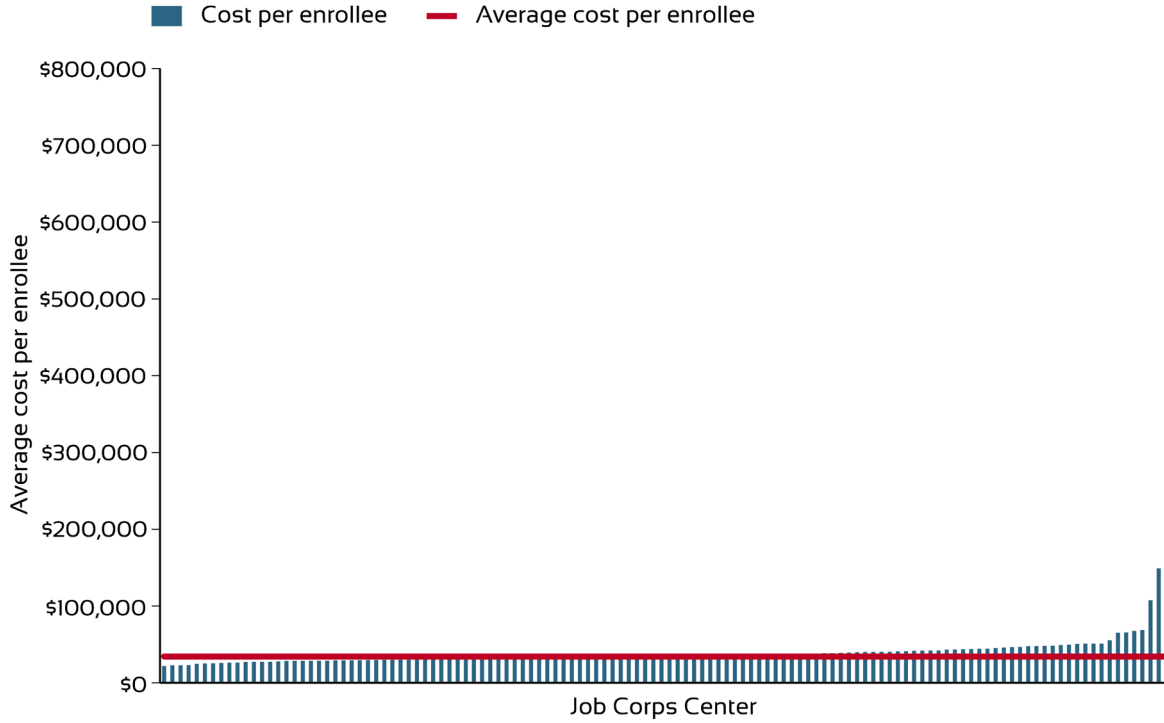
Figure 2. Average Cost per Graduate at Centers Based on the PY 2017 Methodology, PY 2017
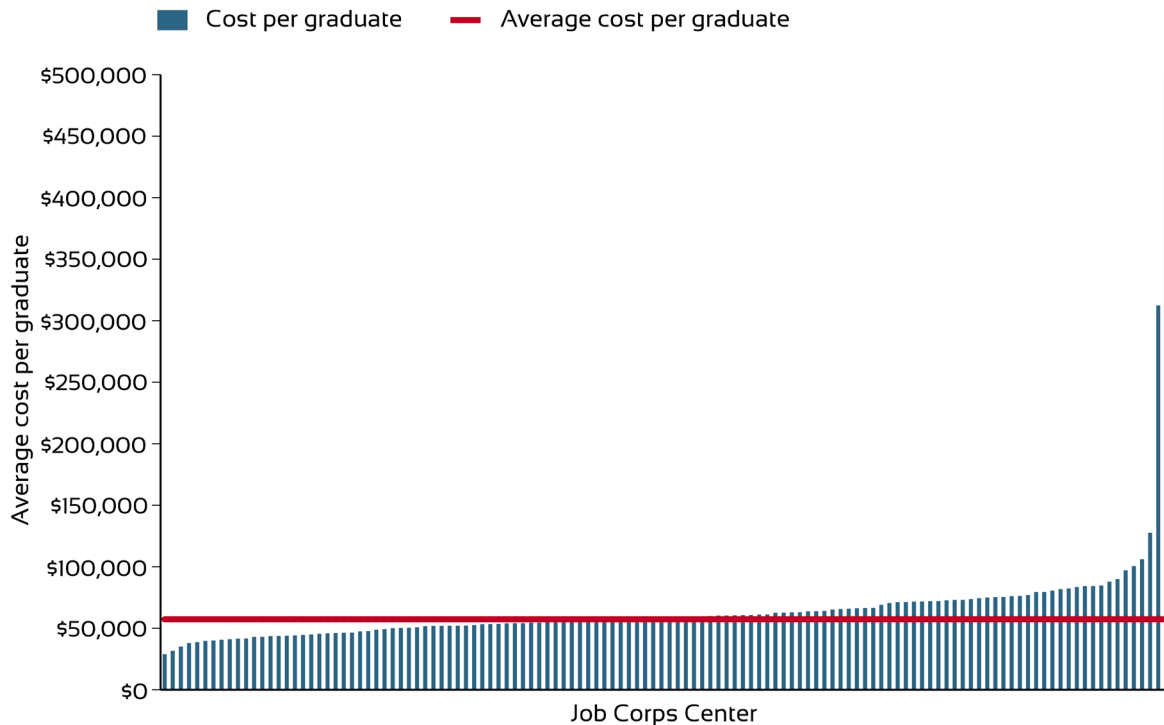
Notes: The estimated cost per graduate at Cascades Job Corps Center (whose costs are included in this figure with other centers) is $512,596, which appears to be the result of a low number of new enrollees in PY 2016 (*N* = 23). By contrast, the number of new enrollees in PY 2017 is much higher (*N* = 223), resulting in the cost per new enrollee not being an outlier, unlike the cost per graduate.

Because there are outliers in the cost estimates, Insight also produced Job Corps-wide estimates that exclude these centers. In this report, an outlier is defined as any center with an average cost that falls above or below two standard deviations from the mean. For cost per enrollee, Golconda (Chicago region) is an outlier. When Golconda, with an average cost per enrollee of $781,087, is removed, the average cost per enrollee across all centers is $34,232. For cost per graduate, Cascades (San Francisco region) and Golconda are outliers, with average costs per graduate of $499,487 and $312,435, respectively. When these centers are removed, the average cost per graduate is $56,818.

Table 2. Average Cost per Enrollee and Average Cost per Graduate by Center Based on the PY 2017 Approach, PY 2017

Job Corps Center	Region	Average Cost per Enrollee	Average Cost per Graduate
Arecibo	Boston	$65,648.28	$57,267.65
Barranquitas	Boston	$68,816.43	$62,959.72
Cassadaga	Boston	$30,477.98	$57,164.43
Delaware Valley	Boston	$45,309.69	$81,792.82
Edison	Boston	$48,312.29	$72,181.99
Exeter	Boston	$42,295.35	$79,614.79
Glenmont	Boston	$43,382.16	$66,422.44
Grafton	Boston	$43,491.96	$73,620.48
Hartford	Boston	$33,607.01	$61,187.94
Iroquois	Boston	$33,640.24	$84,246.86
Loring	Boston	$48,045.74	$74,990.31
New Hampshire	Boston	$40,115.78	$69,149.86
New Haven	Boston	$51,091.72	$87,899.74
Northlands	Boston	$51,047.30	$127,618.24
Oneonta	Boston	$42,257.84	$63,892.24
Penobscot	Boston	$32,588.19	$53,389.17
Ramey	Boston	$55,444.33	$60,662.62
Shriver	Boston	$43,967.46	$59,609.73
South Bronx	Boston	$40,404.21	$65,972.50
Westover	Boston	$46,068.36	$74,418.12
Blue Ridge	Philadelphia	$44,539.86	$84,749.45
Carl D. Perkins	Philadelphia	$39,905.94	$41,747.75
Charleston	Philadelphia	$29,644.86	$62,705.02
Earle C. Clements	Philadelphia	$38,585.18	$57,283.67
Flatwoods	Philadelphia	$40,240.68	$71,780.67
Frenchburg	Philadelphia	$46,858.03	$72,089.28
Great Onyx	Philadelphia	$30,121.94	$73,001.41
Harpers Ferry	Philadelphia	$41,251.12	$100,594.83
Keystone	Philadelphia	$31,931.11	$77,104.98
Muhlenberg	Philadelphia	$30,414.80	$48,864.95
Old Dominion	Philadelphia	$31,071.27	$52,170.82
Philadelphia	Philadelphia	$24,763.45	$38,722.77
Pine Knot	Philadelphia	$33,661.77	$60,797.29
Pittsburgh	Philadelphia	$31,925.45	$51,931.14
Potomac	Philadelphia	$41,099.16	$59,415.10
Red Rock	Philadelphia	$36,011.33	$76,103.94

Job Corps Center	Region	Average Cost per Enrollee	Average Cost per Graduate
Whitney M. Young	Philadelphia	$30,833.33	$41,581.56
Wilmington	Philadelphia	$28,029.22	$43,621.64
Woodland	Philadelphia	$43,792.07	$70,608.56
Woodstock	Philadelphia	$35,411.74	$63,741.14
Atlanta	Atlanta	$149,224.68	$28,986.09
Bamberg	Atlanta	$31,784.05	$57,654.79
BL Hooks/Memphis	Atlanta	$33,852.81	$54,650.27
Brunswick	Atlanta	$29,723.34	$53,661.60
Finch-Henry	Atlanta	$27,309.30	$46,462.89
Gadsden	Atlanta	$49,130.31	$60,351.43
Gainesville	Atlanta	$65,364.35	$66,259.75
Gulfport	Atlanta	$31,655.44	$58,113.72
Jacksonville	Atlanta	$35,838.11	$61,265.15
Jacobs Creek	Atlanta	$34,084.26	$106,111.38
Kittrell	Atlanta	$32,272.34	$64,229.83
Lyndon Johnson	Atlanta	$32,213.09	$57,409.46
Miami	Atlanta	$42,125.10	$76,373.16
Mississippi	Atlanta	$30,984.96	$52,243.70
Montgomery	Atlanta	$33,251.51	$46,182.65
Oconaluftee	Atlanta	$30,175.94	$65,264.24
Pinellas County	Atlanta	$33,548.23	$50,460.97
Schenck	Atlanta	$28,742.76	$44,248.73
Turner	Atlanta	$26,338.56	$54,054.67
Albuquerque	Dallas	$29,412.67	$72,705.47
Anaconda	Dallas	$32,888.53	$54,641.57
Boxelder	Dallas	$40,478.15	$60,512.79
Carville	Dallas	$31,392.29	$54,151.69
Cass	Dallas	$30,124.28	$55,985.69
Clearfield	Dallas	$28,892.15	$44,563.07
Collbran	Dallas	$31,095.32	$56,230.71
David Carrasco	Dallas	$22,985.23	$35,213.82
Gary	Dallas	$27,344.45	$41,087.30
Guthrie	Dallas	$22,963.53	$51,698.32
Kicking Horse	Dallas	$107,561.27	$31,635.67
Laredo	Dallas	$36,805.97	$55,088.68
Little Rock	Dallas	$26,462.31	$42,986.80
New Orleans	Dallas	$23,116.31	$40,092.35
North Texas	Dallas	$33,477.33	$79,594.05
Quentin Burdick	Dallas	$33,704.54	$71,261.02
Roswell	Dallas	$31,962.93	$75,318.60
Shreveport	Dallas	$25,844.73	$44,996.59
Talking Leaves	Dallas	$21,919.65	$43,958.43
Trapper Creek	Dallas	$28,414.16	$56,599.18
Tulsa	Dallas	$32,275.51	$57,879.54
Weber Basin	Dallas	$28,962.34	$54,146.98
Wind River	Dallas	$38,963.66	$84,372.43

Job Corps Center	Region	Average Cost per Enrollee	Average Cost per Graduate
Atterbury	Chicago	$35,517.00	$57,006.28
Blackwell	Chicago	$38,597.88	$50,072.93
Cincinnati	Chicago	$25,548.37	$37,942.05
Cleveland	Chicago	$33,339.49	$52,545.94
Dayton	Chicago	$27,327.86	$43,059.02
Denison	Chicago	$28,625.49	$57,250.99
Detroit	Chicago	$33,198.26	$52,148.94
Excelsior Springs	Chicago	$31,134.24	$65,623.02
Flint Hills	Chicago	$29,308.44	$45,590.91
Flint/Genesee	Chicago	$39,504.50	$83,530.61
Gerald R. Ford	Chicago	$29,494.58	$47,672.87
Golconda	Chicago	$781,087.20	$312,434.90
H. Humphrey	Chicago	$781,087.25	$312,434.90
Joliet	Chicago	$33,203.24	$43,702.29
Milwaukee	Chicago	$31,280.36	$71,417.20
Mingo	Chicago	$37,657.00	$57,505.76
Ottumwa	Chicago	$35,993.14	$66,625.59
Paul Simon Chicago	Chicago	$36,465.59	$49,277.82
Pine Ridge	Chicago	$29,313.95	$50,252.49
St. Louis	Chicago	$31,434.55	$82,328.58
Alaska	San Francisco	$32,126.92	$50,818.94
Angell	San Francisco	$67,647.52	$90,037.90
Cascades	San Francisco	$30,013.14	$53,266.57
Centennial	San Francisco	$50,608.85	$499,487.33
Columbia Basin	San Francisco	$34,851.72	$47,485.47
Curlew	San Francisco	$28,624.83	$46,558.46
Fort Simcoe	San Francisco	$36,845.72	$63,047.13
Fred G. Acosta	San Francisco	$37,011.05	$80,650.95
Hawaii	San Francisco	$33,952.93	$52,016.56
Inland Empire	San Francisco	$51,143.99	$97,008.60
Long Beach	San Francisco	$46,502.09	$73,038.61
Los Angeles	San Francisco	$37,830.63	$75,468.25
Phoenix	San Francisco	$47,715.12	$59,228.46
Sacramento	San Francisco	$30,699.52	$40,665.74
San Diego	San Francisco	$36,378.96	$60,389.08
San Jose	San Francisco	$34,996.07	$55,330.44
Sierra Nevada	San Francisco	$44,622.59	$58,282.56
Springdale	San Francisco	$33,148.15	$62,759.15
Timber Lake	San Francisco	$41,799.66	$71,708.03
Tongue Point	San Francisco	$27,183.37	$45,917.86
Treasure Island	San Francisco	$49,697.17	$59,895.61
Wolf Creek	San Francisco	$25,348.62	$57,426.67

Note: Estimates include 43,125 enrollees and 25,810 graduates.

3. Potential Refinements to Methods and Measures for Future Calculations

The PY 2017 methodology meets WIOA reporting requirements, provides accurate cost estimates, is transparent, and requires low computational resources. However, there are potential opportunities to refine the PY 2017 methodology for future years. There also are other ways to define the measures that may provide additional program management insights.

▸ **Use improved NCFMS data on OA and CTS costs for each center.** The PY 2017 approach aggregates all OA and CTS costs in a region and allocates them proportionally to the number of enrollees and graduates, respectively. An alternative approach is to refine the allocation procedure to account for the flows of participants and expenses among OA providers, CTS providers, and centers. OJC's Job Corps Data Center (JCDC) already collects data on whether each participant arrives as a referral from the center itself, a different center, or a specific OA provider. This information can be used in conjunction with detailed cost data for each center and OA provider on OA activities to allocate expenses with more accuracy. Although OA cost data are not currently available for centers, ETA has considered collecting these data as part of its enhancements to NCFMS. In practice, this process would take the form of calculating OA costs for each center (from NCFMS) and dividing them equally among the participants referred from each center (from the JCDC data). A similar approach could be taken with CTS costs and referrals of graduates.

▸ **Collect and use information on regional and national support to each center.** The PY 2017 methodology currently allocates regional and national costs evenly across all centers in the region. However, some centers likely require more support from regional and national offices, and other centers likely require less support. Future work might explore administrative records on the time staff support each center and allocate resources based on the proportion of time spent.

▸ **Collect more precise information about costs associated with Civilian Conservation Corps (CCC) centers.** OJC can also explore refinements to the approach used for CCC centers in Job Corps. Under all approaches, center-level operations budgets at CCC centers are calculated as the sum of each CCC center's balance in the trial balance sheet from the U.S. Department of Agriculture (USDA). Although this method of calculating costs aligns with the PY 2017 approach, the trial balance sheet includes costs from cost centers other than CCC centers. To be consistent with the PY 2017 approach, money USDA spends at the national level that supports the CCC centers must be allocated accordingly among them. A deeper understanding of the trial balance data from USDA is required to understand which cost centers indicate expenses at regional and national levels. Once these distinctions can be determined, the same strategy of aggregating regional and national expenses and allocating them proportionally—this time among just the CCC centers—can be used to produce the most accurate estimates of each CCC center's operations budget.

▸ **Adjust graduation definition.** OJC may wish to consider other options for calculating the number of graduates from each center; for example, by using graduates per enrollment cohort (entry based). This method could include the number of people who graduated in a given program year after being enrolled in the previous program year. Other variations of cohort definition are possible and would require participant-level data (e.g., matching students in the

enrollee counts to students in the graduate counts). Alternatively, costs per graduation cohort could be constructed on a rolling basis to account for differences between the program year and a typical academic year for Job Corps participants. Cost per graduate could also be constructed to consider participant tenure in the program using a weighted average of graduates based on when they enrolled. This method would consider programs with students graduating sooner to be more efficient.

▶ **Collect and analyze data on CRA costs.** CRA costs are expenses for an asset that typically produce value for much longer than the year the expense was incurred.[3] Using CRA costs in a single year, per the PY 2017 approach, may result in irregularly high costs in that year. Instead, OJC may choose to spread CRA costs across the useful life of the asset. Spreading CRA costs across multiple years would require (1) information about each asset reported as a CRA cost, (2) information on the useful life of each asset, (3) information on CRA costs from all previous years that are to be spread into the program year of interest, and (4) a method for spreading the cost of the asset over time. OJC currently identifies eight broad categories of CRA costs, including "land and structures—building and structures" and "operation and maintenance of facilities—building maintenance and repairs." OJC can either assume a single useful life span for each broad category or collect more detailed information on each asset purchased for Job Corps and then estimate the useful life of that asset. A single useful life span for each broad category may be challenging because of a wide variation in the life span within each CRA category (see table 3). When all required data have been collected, OJC can choose a method for spreading each cost over the relevant years when the asset has value. Table 4 presents four potential methods OJC can use, such as the Modified Accelerated Cost Recovery System (MACRS) of the Internal Revenue Service (U.S. Department of the Treasury, Internal Revenue Service, 2019). For some methods, OJC would need to collect additional data, such as the salvage value of the asset, before it could spread the costs over time.

Table 3. Hypothetical Assets in Selected CRA Categories

OJC CRA Category	Asset	Value	Life Span
Equipment, Furniture and Equipment	Printer	$600	5
Equipment, Furniture and Equipment	Lathe	$21,000	15
Equipment, Furniture and Equipment	Electric forklift	$25,000	8
Land and Structures, Building and Structures	Paved sidewalk	$3,500	15
Land and Structures, Building and Structures	Building expansion	$250,000	40
Operation and Maintenance of Facilities, Building Maintenance and Repairs	Roof replacement	$15,000	40
Operation and Maintenance of Facilities, Building Maintenance and Repairs	Plumbing improvements	$10,000	40

---

[3] In PY 2017, 68 percent of facilities reported CRA costs at the center level; national, regional, and center level CRA costs together accounted for 5 percent of the total cost to Job Corps.

Table 4. Potential Depreciation Methods

Method	Description
Straight-Line Method	Portion of the asset is depreciated over useful life. In the final year of useful life, a "salvage value" is estimated.
MACRS Straight-Line Method	Portion of the asset is depreciated over an estimated useful life, summing to the full value of the asset. No "salvage value" is estimated in the final year.
Production or Use Method	Portion of the asset is depreciated each year based on the estimated use of the asset.
Accelerated Method	Portion of the asset is depreciated each year, with early years depreciating larger balances of the asset's cost than later years.

References

Berk, J., Rosenberg, L., Cattell, L., Lacoe, J., Fox, L., Dang, M., & Brown, E. (2018). *The external review of Job Corps: An evidence scan report*. Mathematica Policy Research.

DOL (Department of Labor). (2019). *FY 2019 Congressional budget justification, employment and training administration: Job Corps*. https://www.dol.gov/sites/dolgov/files/general/budget/2019/CBJ-2019-V1-04.pdf

DOL, Office of Inspector General. (2011). *Job Corps needs to improve reliability of performance metrics and results.* https://www.oig.dol.gov/public/reports/oa/2011/26-11-004-03-370.pdf

U.S. Department of the Treasury, Internal Revenue Service. (2019). *Publication 946: How to depreciate property* (Cat. No. 13081F). https://www.irs.gov/pub/irs-pdf/p946.pdf

Appendix A. Data Elements

OJC maintains comprehensive administrative data about Job Corps, which can be used to estimate the cost per enrollee and the cost per graduate. Table A.1 presents key data elements followed by their source and the name of the database containing the data element.

Table A.1. Data Elements, by Data Source and Database

Data Element	Source	Database
Region for each center	ETA OJC	General information
Home center for satellite centers	ETA OJC	General information
Awarded contracts for each center	ETA Office of Financial Administration	Job Corps Fund Allocation System
Administrative expense records for all components of Job Corps	ETA Office of Financial Administration	New Core Financial Management System
Spend Plan	ETA Office of Financial Administration	Internal cost information
Self-reported cost data for each center	ETA Office of Financial Administration	Financial Management System
Number of participants at each center	ETA OJC Job Corps Data Center	Center Information System
Number of new enrollments for each center	ETA OJC Job Corps Data Center	Center Information System
Number of graduates for each center	ETA OJC Job Corps Data Center	Center Information System
National training contractor slots for each center	ETA OJC Job Corps Data Center	Center Information System

Region for each center. OJC maintains information on the name of every active Job Corps center and the region in which it resides (Boston, Philadelphia, Atlanta, Dallas, Chicago, or San Francisco). The information can be used to allocate regional costs to the centers within each region because each center is assigned a corresponding region.

Home center for satellite centers. OJC maintains information on the home Job Corps center (South Bronx, Atterbury, Hawaii, and Springdale) assigned to each of the four satellite Job Corps centers (Brooklyn, IndyPendence, Maui, and PIVOT, respectively). Satellite centers are centers that share awarded contracts with their home center and therefore cannot be presented with their own cost per enrollee or cost per graduate measures separately from their home center.

Awarded contracts for each center. ETA's Office of Financial Administration (OFA) maintains an internal database of contracts awarded by Job Corps, which includes information on the center associated with each contract, the dollar amount of the contract, and the start and end date of the contract. This database is referred to as the Job Corps Fund Allocation System. The data can be used to develop an estimated contract value for each center for a given program year. Although OFA maintains careful records about its contracts, the contract values are appropriated amounts and may not reflect the actual costs borne by the holder, either in aggregate or in a particular program year.

Administrative cost records for all components of Job Corps. OFA maintains the New Core Financial Management System (NCFMS), a database of expenditures from all Job Corps funds. NCFMS includes every component of Job Corps that can expend resources—the national office, regional offices, centers, OA providers, CTS providers, and NTCs—along with the date the expenses were charged and by what

organization. The expenditure categories include Other Services—Miscellaneous Services, Rental Payments to Others—Non-Federal Space Rental, and Other Services From Non-Federal Sources. NCFMS data reflect actual costs to manage Job Corps rather than appropriated amounts through contracts. Although NCFMS does not disaggregate costs consistently and accurately for OA and CTS activities at Job Corps centers, it does accurately identify costs expended by OA and CTS providers. OFA is configuring the database to provide more accurate information about OA and CTS costs at the regional and center level for future use.

Spend Plan. OFA creates a Spend Plan based on the planned obligations for the program year. The Spend Plan includes total appropriations for the program year split across several cost categories. These costs are estimates of planned spending and do not necessarily represent actual expensed amounts.

Self-reported cost data for each center. OFA's Job Corps Data Center (JCDC) maintains the Financial Management System (FMS), a web-based information technology application, to collect data corresponding with center costs and projected budgets. Centers' self-reported cost data on operations; construction, rehabilitation, and acquisition; program costs; OA; and CTS are input into FMS through monthly 2110 (monthly costs) and 2181 (annual budget) forms. The data in FMS may be less reliable than NCFMS because they are self-reported.

Number of participants, new enrollments, and graduates for each center. JCDC maintains the Center Information System database, which contains a variety of data on operations at each center. JCDC can query the number of participants at each center on a given date, the number of new enrollments at each center over the program year, and the number of graduates from each center over the program year.

NTC slots for each center. JCDC maintains a database of NTCs that support training efforts at Job Corps centers. NTCs work under contract with the national office and agree to maintain a predetermined student-slots-per-instructor ratio. The Center Information System database contains data on the number of NTC slots at each center that can be serviced by each NTC.

Appendix B. Additional Specifications

Alternative specifications of cost per enrollee and cost per graduate can provide additional insights to ETA. In this appendix, we describe two measures constructed with alternative definitions of cost and three measures with alternative definitions of enrollment. We contrast these measures with the PY 2017 methodology. While the PY 2017 methodology best achieves the four goals of WIOA compliance, accuracy, transparency, and minimized computational resources, these alternative measures may provide additional management insights useful to ETA. The alternative specifications capture different aspects of the program and can yield additional information on differences in costs and enrollment across centers. Table B.1 summarizes the average center cost per enrollee and cost per graduate of the PY 2017 methodology and alternative specifications.

Table B.1. Average Center Cost per Enrollee and Average Cost per Graduate by Methodology, PY 2017

Methodology	Job Corps-Wide Average Cost per Enrollee	Job Corps-Wide Average Cost per Graduate
PY 2017 methodology	$34,301	$57,312
Alternative Cost Measures		
OJC historical methodology	$39,528	$66,194
OJC PY 2016 exploratory methodology with participant-based enrollment	$22,089	$61,500
Alternative Enrollment Measures		
PY 2017 cost methodology with participant-based enrollment	$20,584	$57,312
PY 2017 cost methodology with capacity-based enrollment	$40,420	$57,312
PY 2017 cost methodology with utilization-based enrollment	$60,036	$57,214

B1. Measures With Alternative Cost Methodology

OJC has developed two alternative approaches to estimating costs for internal use. One approach determines center costs based on prorated Federal Job Corps appropriations. A second approach emphasized the use of estimated contract value for each Job Corps center. In addition to having alternative definitions of costs, these approaches also provide a participant-based measure of enrollees (the number of participants ever enrolled in a program year) as opposed to the new enrollee approach in the PY 2017 methodology.

1. OJC Historical Methodology

An alternative methodology for estimating costs is to base them only on appropriations. According to DOL, the historical approach ("Pete Rell Method") for calculating the two performance measures was to divide total appropriations requested by the number of enrollees and the number of separations (T. Deuschle, personal communication, September 13, 2019). Enrollees were defined as the number of Job Corps participants ever enrolled in the program year, not just those who first enrolled in the program year (participant based). In PY 2018, the total appropriation enacted for Job Corps was $1,718,655,000, and the number of separations was 45,173. The ratio of those two numbers, $38,046, would be the estimate of the average cost per graduate in PY 2018 based on the OJC historical methodology.[4] An

---

[4] This report does not present estimates for PY 2017 using this approach for comparison because data on the number of separations are not currently available.

approximation of this approach for PY 2017 using the full-year continuing resolution funds of $1,704,155,000 from the Congressional Budget Justification and the number of enrollees and the number of graduates yields estimates of an average cost per enrollee of $39,517 and an average cost per graduate of $66,027 (DOL, 2019).

As with the previous methodologies, this approach has advantages and disadvantages. One advantage is the calculation is transparent. The total appropriation requested is based on a Congressional Budget Justification in the public record and does not require any mathematical manipulation for estimating costs in this context. Another advantage is it requires very few computational resources. The cost estimates are a matter of dividing appropriations by the number of enrollees and separations. There are, however, several limitations OJC may consider if it selects this approach. First, the approach does not meet the WIOA reporting requirements for measuring the average costs per center because the appropriation is for all Job Corps and does not yield cost per enrollee and cost per graduate estimates for each center. Second, the results may not be accurate because the appropriations requested may not equal the actual costs borne by centers. The use of separations is also problematic because not all participants who separate from Job Corps are considered graduates. A better approach would be to use the JCDC-based estimates of the number of graduates.

2. ETA 2016 Exploratory Cost Methodology

Another potential methodology is the one developed by OJC in PY 2016 (K. Aimoto & R. Jeun, personal communication, August 23, 2019). The approach divided the center's total budget by the participant-based counts of enrollees and graduates. The total budget was defined as the sum of the center's cost of operations, NTC costs, OA costs, CTS costs, and program costs and was calculated as follows:

▸ **Center cost of operations.** OJC considered the estimated contract value (ECV) for each Job Corps center. To construct the ECV for DOL-based centers, OJC first calculated a cost-per-day metric by summing the values in the Job Corps Fund Allocation System for all contracts lasting an equal number of days and dividing the total by the number of days in those contracts. OJC then multiplied the metric by 365 days per year to transform it into a cost-per-year metric. The ECV was then calculated as the average of the cost-per-year metrics across all contracts for a center. For CCC centers, OJC relied on the USDA trial balance data reports and calculated the ECV as the sum of all expenditures for the CCC center. OJC then multiplied the average ECV per year for these centers by the national proportion of total allocations on operations costs to determine each center's cost of operations.

▸ **NTC costs.** OJC estimated the NTC costs for each center as the allocation of total NTC expenditures to the center based on the proportion of NTC slots at that center. That is, OJC multiplied the total NTC costs by the number of NTC slots allocated to the center divided by the total number of NTC slots nationwide.

▸ **OA costs.** OJC estimated OA costs for each center as the allocation of the national OA budget to the center based on the proportion of enrollees served at that center. The national OA budget was calculated in the Spend Plan for the program year using estimates based on obligations from the previous program year and planned obligations provided by the program.

▸ **CTS costs.** OJC estimated CTS costs for each center as a proportion of the national CTS budget to the center based on the proportion of enrollees served at that center. The national CTS budget was presented in the Spend Plan for the program year.

▶ **Program costs.** Program costs consist of each center's share of Job Corps-wide expenditures that are not accounted for by operational expenditures. The program costs for the Nation were calculated as the difference between the total appropriated costs for the program year and the total costs appropriated for operations, OA, and CTS from the Spend Plan. To determine the cost for each center, the national program cost was multiplied by each center's proportion of operations costs relative to the Nation.

Using this OJC PY 2016 methodology, the Job Corps-wide average cost per enrollee was $22,089, and the average cost per graduate was $61,500 (see table B.2). The average cost per enrollee was lower than the average cost using the PY 2017 methodology because of differences in total costs and systematically greater number of enrollees using the participant-based definition. The average cost per graduate was greater than the average cost using the PY 2017 methodology because of differences in the cost calculation. The median cost per enrollee was $33,651 under the PY 2017 methodology and $21,670 under the OJC PY 2016 methodology, and the median cost per graduate was $57,997 under the PY 2017 methodology and $62,440 under the OJC PY 2016 methodology.

Table B.2. Average Cost per Enrollee and Average Cost per Graduate Based on OJC PY 2016 Exploratory Methodology, PY 2017

Unit of Analysis	Average Cost per Enrollee	Average Cost per Graduate
Job Corps as a whole	$22,089	$61,500
Lowest cost center	$10,740	$34,852
Highest cost center	$308,183	$635,652
Median cost center	$21,670	$62,440

Note: Estimates were derived from information received from ETA OJC, the ETA OJC/Job Corps Center Information System, and the ETA Office of Financial Administration's New Core Financial Management System. Estimates include 71,861 enrollees, 25,810 graduates, and 124 centers.

The OJC PY 2016 methodology is a careful and comprehensive approach for estimating the two performance measures, but it has several limitations relative to the PY 2017 methodology. It meets WIOA reporting requirements by providing estimates for the average cost per enrollee and the average cost per graduate for all of Job Corps and for each center. However, the transparency, accuracy, and computational requirement for the methodology are greater than those of the PY 2017 methodology. ECV is a complex statistic that assumes contract funds are consistently and exhaustively expended throughout the contract period, and analyses show it is not equivalent to the total expenditures in a given program year.

The NTC calculations may also be problematic because they allocate funds based on training slots at each center rather than on the number of enrollees at each center. Centers with more enrollees than slots may have underestimated costs if multiple enrollees use the same slot. The allocation of OA and CTS costs across all centers as a proportion of enrollees and graduates, respectively, also belies the fact that not all centers have OA and CTS contracts. Computationally, the OJC PY 2016 approach is a sophisticated method for calculating these costs and requires multiple iterations of adjustment to assign costs before summing to a final total budget; it therefore requires a deep understanding of the methodology at play and data from several sources.

B2. Measures With Alternative Enrollee Methodology

This section discusses three measures of enrollees that could be used as alternatives to the new-enrollee definition in the PY 2017 methodology, depending on the management objective. The first uses a participant-based definition of enrollees; the second uses a capacity-based definition of enrollees; the third uses a utilization-based definition of enrollees. All costs presented in this section are calculated using the PY 2017 methodology.

1. PY 2017 Cost Methodology With Participant-Based Enrollment

An alternative methodology for estimating the cost measures is to use a participant-based definition of the number of enrollees: the number of people who participated in Job Corps in the program year. OJC has used this definition, which calculates enrollment by summing enrollment on the first day of a program year (thus first enrolling in a prior year) and the number of new enrollments throughout that program year. This definition yields a higher number of enrollees than the entry-based definition. There are 71,861 participant-based enrollees in PY 2017, made up of the 28,736 people who were enrolled on the first day of PY 2017 and the 43,125 people who first enrolled in PY 2017.

This alternative definition of enrollment offers some advantages and disadvantages relative to the entry-based definition. One advantage is it is not as sensitive to program length as the entry-based definition. For example, if Center A has 100 people who start and end in PY 2017, and Center B has 100 people who start in PY 2016 and end in PY 2017, the participant-based definition of enrollment would yield 100 enrollees for both centers, whereas the entry-based definition would yield 0 enrollees for Center B.

However, this alternative does offer some disadvantages. Because this methodology counts participants who enrolled in the previous program year, the cost estimates are sensitive to the timing at which enrollment happens at Job Corps centers. For example, a center that begins the program year with 50 people in 100 training slots and then replaces those people with 50 more people as they separate can appear to be operating at full capacity based on this enrollment definition. The methodology is also sensitive to the level of turnover in enrollments at a center because the level of enrollment increases with every subsequent enrollee who enters the center. For example, a center with 100 training slots filled with people who separate monthly and are immediately replaced would have 1,200 enrollees and therefore a relatively low cost per enrollee using the participant-based definition.

2. PY 2017 Cost Methodology With Capacity-Based Enrollment

Another way to define enrollment is to consider the number of available slots at each enrollment center, which measures the capacity of the center. A 2011 report by the DOL Office of Inspector General presents this method for counting enrollment as superior to counting participants alone (DOL, Office of Inspector General, 2011). The report posits that although counting individual enrollments may be affected by the level of turnover in the program, the number of training slots the program makes available is a more stable, annualized portrayal of the efficiency of Job Corps operations. The capacity-based enrollment in PY 2017 was 36,561 enrollees, compared with the 72,177 participant-based enrollees and the 43,125 entry-based enrollees.

The capacity-based approach for calculating enrollment also exhibits advantages and disadvantages relative to the entry-based approach used in the PY 2017 methodology. Like the participant-based definition, this approach is not sensitive to when people first enroll. A center that had all people first

enroll in PY 2016 would have no enrollment based on the entry-based enrollment definition, but it would have enrollment based on the capacity-based definition. The primary disadvantage of this definition is that it does not lead to cost estimates that reflect the actual number of Job Corps participants in utilization of training slots, separation, or new enrollment over the course of the program year.

3. PY 2017 Cost Methodology With Utilization-Based Enrollment

A third alternative for defining enrollment is to base it on the level of utilization of training slots over the program year. The utilization-based measure estimates the true level of utilization where the center operates during the program year. It can be calculated as the average of enrollment in every month during the program year the center is open. This definition results in the lowest level of enrollment at each center compared with all other methodologies. Enrollment estimated using this method is 24,587 for the program overall during PY 2017.

The utilization-based definition of enrollment is robust to the issue of hold-over enrollees and high enrollee turnover because it considers only the level of enrollment during the program year and not a count of individual enrollees. It also improves on the capacity-based definition by portraying the real level of enrollment. The main disadvantage of this definition is its distance from the actual words in WIOA, which defines enrollment using the participant-based definition. However, OJC may choose to use this approach because it is an annualized performance metric based on both annualized cost and annualized enrollment measures.