Department of the Interior and Expanding Conservation Corps Partnerships

Summer 2020

About Corps

Modern Conservation Corps are usually non-profit or state-operated programs that engage young adults (ages 16 – 30) and post-9/11 veterans (up to age 35) in a term of service completing conservation and community improvement projects. During their service, which could last from a few months to a year, Corps participants – or "Corpsmembers" – gain work experience and develop in-demand skills. Corpsmembers are compensated with a living allowance and, in some cases, may receive an AmeriCorps Education Award upon completing their term of service. There are currently *130+* Conservation Corps across the country, which collectively engage some *25,000* diverse participants annually.

History

The history of Corps dates to the Civilian Conservation Corps (CCC): a federal program that put 3 million young men to work during the Great Depression. The CCC helped shape America's public land infrastructure, planting 3 billion trees, building more than 125,000 miles of roads, 318,000 dams, and 3,000 fire towers. The CCC disbanded in 1942, but *the model lives on in 21st century Corps*.

What Can Corps Do to Help Address the Backlog?

Corps partner with resource managers at the *federal, state and local level* to engage Corpsmembers in a range of maintenance and improvement projects. This helps effectively manage current and future maintenance costs.

Trail construction	GIS mapping	Grounds maintenance
Invasive species management	Historic preservation	Sign installation
Fuel reduction	Species monitoring	Dock/boardwalk construction
Fencing installation	Visitor education	Data collection
Campground maintenance	Wildfire response	Disaster recovery

DOI and Corps Partnerships – How Does it Work?

Cooperative Agreements The majority of projects done in partnership between DOI and Corps are accomplished through *cooperative agreements*. The Public Lands Corps Act (PLCA) of 1993 provided the Departments of Interior and Agriculture the authority to utilize contracts and cooperative agreements to engage Corps on public lands conservation and infrastructure projects. The 21st Century Conservation Service Corps Act (21CSC), passed in 2019, updated this legislation to include the Department of Commerce (NOAA).

Project Development

- Projects identified at the local level are prioritized and submitted as part of a five-year plan.
- The plans are then submitted through the regional office to the Washington Office for approval.
- Once a project is approved and funded, the land manager may use the PLCA authority to enter into a cooperative agreement or task agreement with a Corps to complete the work. Many Corps have cooperative agreements with some or all of the bureaus. Corps that do not have their own agreement may be able to do the project under one of The Corps Network's agreements. The Corps Network currently has national agreements with the National Park Service, U.S. Fish & Wildlife Service, and the U.S. Forest Service.

Project Work Corpsmembers can begin work once a cooperative or task agreement between the Corps and the land management unit is signed. Corps organize Corpsmembers into crews of up to ten participants, usually supervised by two Crew Leaders. Land managers often meet with Crew Leaders prior to the start of a project to give an introduction and instructions. Corps handle their own recruitment, insurance and tools; they are largely self-sufficient and can be trusted to complete quality work without heavy oversight, thus freeing time for agency staff to focus on other priorities. Based on the projected availability of work and funding for a given season, Corps hire and train staff; procure gear, tools, and transportation; and sometimes find Corpsmember housing.

Federal Funding for Project Partnerships with Corps

	NPS	USFS	USFWS	BLM
2019	$25,333,385.40	$72,333,334.64	$6,920,056.00	$8,516,440.85
2018	$21,292,832.88	$22,923,201.91	$2,248,147.00	$7,870,900.96
2017	$29,039,227.00	$24,307,399.00	$6,651,333.00	$9,447,738.00
Total	$75,665,445.28	$72,333,334.64	$15,819,536.00	$25,835,078.91

Benefits of Engaging Corps

Cost efficiency: A study commissioned by NPS found the agency could save an average of *65% on project expenses* when partnering with Corps. Corps are cost-effective because they bring additional funding sources. Examples of these funding sources include:

- Fee-for-Service
- AmeriCorps grants
- Department of Labor grants
- Foundation grants
- Corporate and individual donations
- Facility Operations and Maintenance appropriations
- Supplemental appropriations (disaster recovery)
- Friends Groups
- Concessionaire project support
- In-kind support
- Federal Lands Recreation Enhancement Act funds

Next generation: Corpsmembers receive training in soft skills – like teamwork, communications, and critical thinking. Many Corpsmembers also earn industry-recognized credentials and training in project-specific skills, like chainsaw use, pesticide application, and trail building. The Public Lands Corps Act of 1993 (PLCA) exempts Corpsmembers from certain Federal labor laws and, as a result of amendments in 2005 and 2016, provides Corpsmembers who complete 640 hours of service in a Corps (with 120 hours solely on PLC projects) with two years of non-competitive federal hiring eligibility. The PLCA also established a Resource Assistants Program (RAP), through which DOI and the Department of Agriculture can engage individual Corpsmembers who are in college, or have graduated from college, to assist with more technical projects. RAP members are eligible for direct hire by DOI's land management bureaus. At the end of their term of service, Corpsmembers have meaningful work experience and the skills to be America's next generation of resource professionals.

The Corps Network

Established in 1985, The Corps Network is the National Association of Service and Conservation Corps. The Corps Network supports Corps through advocacy, funding and projects, and offering expertise in Corps operations and programming.

2019 NPS Repair Rehabilitation Projects Cost Savings Analysis

In 2012, the National Park Service (NPS) Park Facility Maintenance Division (PFMD) conducted a project analysis to determine how the costs of engaging a conservation corps to accomplish cyclic maintenance activities at national parks compared with the costs of using contractor crews.

The project analysis determined that, on average, using conservation corps instead of contractor crews resulted in a project cost savings of 83%.

Applying a project cost savings of 83% to 2019 Repair/Rehabilitation projects that potentially could be executed by Conservation Corps crews resulted in an overall cost savings of nearly $13.4 million, with the average savings per project being $215.9 thousand. See table 1 on the following page

It should be recognized that actual costs may differ when project costs are developed using the NPS cost estimating system with assemblies created specifically for conservation crew labor costs.

Table 1 2019 NPS R/R Project Cost Savings Analysis

Project Title	Contracted Cost	Corps Cost 83% Savings	Savings Contracted vs Corps
Develop New Water Source for Cultural Landscape Irrigation Needs	$128,092	$21,776	$106,316
Eliminate Tripping Hazards on Battlefield Trail	$267,300	$45,441	$221,859
Improve Fort Reno Trail	$405,941	$69,010	$336,931
Improve Greenbelt Park Perimeter Trail to Meet Accessibility Standards	$119,163	$20,258	$98,905
Install Fire Suppression, Utilities, Insulation, and Vapor Barrier at the Historic YMCA Building	$247,051	$41,999	$205,052
Install Ground Flashing at the Historic Rural Plains House	$58,405	$9,929	$48,476
Mitigate Hazardous Conditions on Trails	$358,588	$60,960	$297,628
Preserve Lighthouse Landscape	$71,800	$12,206	$59,594
Rebuild Siege Area Trail Overlook for Park Staff and Visitor Safety	$25,974	$4,416	$21,558
Reconfigure Trail Head at Busch Drive for Improved Storm Water Drainage	$129,360	$21,991	$107,369
Rehabilitate 1.2 miles of Byron Ledge Trail	$136,402	$23,188	$113,214
Rehabilitate 12 Historic Structures in Cabin Camp 2	$133,616	$22,715	$110,901
Rehabilitate Appalachian Trail from Mt. Sequoyah to Hughes Ridge	$80,701	$13,719	$66,982
Rehabilitate Deep Creek Trail	$593,500	$100,895	$492,605
Rehabilitate Five Appalachian Trail Segments in Virginia & W. Virginia	$130,711	$22,221	$108,490
Rehabilitate Front Country Trail System in Support of New Management Plan	$92,038	$15,646	$76,392
Rehabilitate Historic Barn Roof	$729,308	$123,982	$605,326
Rehabilitate Historic Culps Hill-N. Woodlot	$260,154	$44,226	$215,928
Rehabilitate Historic Horse Barn on Santa Rosa Island	$608,303	$103,412	$504,891
Rehabilitate Historic Lake Boathouse Roof Structure	$626,959	$106,583	$520,376
Rehabilitate Historic Observation Tower	$603,104	$102,528	$500,576
Rehabilitate Historic Railway Coach DLW #613	$673,974	$114,576	$559,398
Rehabilitate James Warfield Historic Structure	$227,595	$38,691	$188,904
Rehabilitate Kettle Falls Hiking Trails	$83,015	$14,113	$68,902
Rehabilitate Lewis and Clark National Historical Park Visitor Center Wastewater System	$625,970	$106,415	$519,555
Rehabilitate Longmire Historic District Primary Power Lines	$586,638	$99,728	$486,910
Rehabilitate Masonry and Woodwork in Maintenance Yard (Historic Buildings 3, 4, 5 and 6)	$403,468	$68,590	$334,878
Rehabilitate Nine Sections of Trail System Associated With the Going to The Sun Road	$425,117	$72,270	$352,847
Rehabilitate One Pine Trail to Eliminate Safety Hazards and Severe Erosion	$17,080	$2,904	$14,176
Rehabilitate Sections of the Appalachian Trail in Mid-Atlantic Region	$39,404	$6,699	$32,705
Rehabilitate South Rim Trail	$153,504	$26,096	$127,408
Rehabilitate the Electrical and Fire Alarm System of the Historic Chalet	$443,541	$75,402	$368,139
Rehabilitate the Exterior Envelope of the Historic Vanderbilt Pavilion	$781,266	$132,815	$648,451
Rehabilitate the Exterior of Historic Edison Vault Eight at TENHP with HACE	$199,036	$33,836	$165,200
Rehabilitate the Historic White River Ranger Station	$449,692	$76,448	$373,244
Rehabilitate Two Historic Elwha Buildings, Numbers 36 and 37	$753,445	$128,086	$625,359
Repair and Replace Failing Critical Elements of the Historic Boas Taylor and Furrier Building	$126,470	$21,500	$104,970
Repair Brick Floors in Historic Star Fort	$125,121	$21,271	$103,850
Repair Ed Riggs Trail	$233,005	$39,611	$193,394
Repair eroded section on Bubbles Trail near Connors Nubble	$10,644	$1,809	$8,835
Repair Eroded Treadway Surfaces on Pedestrian and Horse Trails in Ozark National Scenic Riverways	$102,520	$17,428	$85,092
Repair Historic Drainage Structures Along Rim Rock Drive	$326,367	$55,482	$270,885
Repair Historic Structures in Highlands District	$37,600	$6,392	$31,208
Repair Overlook Trail	$196,025	$33,324	$162,701
Repair Trail Tread and Eroded Sections of Cadillac West Face Trail	$52,852	$8,985	$43,867
Repair Tyler Bend Hiking Trail	$145,527	$24,740	$120,787
Repair/Replace Walls, Wrought Iron Fencing, and Landscape at Gloria Dei	$169,581	$28,829	$140,752
Replace Cedar shingles s on Historic Structures.	$122,780	$20,873	$101,907
Replace Accessible Sidewalks/Handicap Crossing/Walkway at Historic Lemon House & Visitor Center	$195,911	$33,305	$162,606
Replace Electrical Distribution System for the Historic Marconi Radio Receiving Station	$138,420	$23,531	$114,889
Replace Footbridge on Calumet River Trail	$215,356	$36,611	$178,745
Replace Historic Windows at the Visitor Center	$57,071	$9,702	$47,369
Replace Observation Deck and Construct ADA Accessible Sidewalk and Ramp to Historic Alley Mill	$253,312	$43,063	$210,249
Replace Roof and HVAC System - Mary McLeod Bethune Council House National Historic Site	$799,763	$135,960	$663,803
Replace Roofs on Historic Structures Project	$231,974	$39,436	$192,538
Replace Three Trail Bridges on Mill Creek Horse Trail	$161,357	$27,431	$133,926
Replace/Rehabilitate Outdated Mechanical Systems at Historic Glenmont Garage	$181,476	$30,851	$150,625
Repoint Masonry & Repair Gate on Historic Fencing on 1856 Washington Light Infantry Monument	$42,700	$7,259	$35,441
Restore Historic Features of Cabin A-7 at Cabin Camp 3	$57,269	$9,736	$47,533
Restore Interior of Historic Captain Edward Penniman House	$57,144	$9,714	$47,430
Restore Worthington Farm Historic Landscape	$140,384	$23,865	$116,519
Site Work at Theodore Roosevelt Inagural National Historic Site	$283,016	$48,113	$234,903
Grand Total	**$16,132,860**	**$2,742,586**	**$13,390,274**

Conservation Corps Project Analysis, Fall 2012

The National Park Service (NPS) Park Facility Maintenance Division (PFMD) conducted a project analysis to determine how the costs of engaging a conservation corps to accomplish cyclic maintenance activities at national parks compared with the costs of using contractor or NPS crews. The project analysis determined that, **on average, using conservation crews instead of NPS crews saved 65% with the minimum savings just 3% and the maximum savings 87%**. The analysis found that the **savings using conservation corps instead of contractor crews were even more significant with average savings of 83% and over $130,000 per project**.

The NPS PFMD together with the Public Lands Service Coalition (PLSC) performed an earlier analysis in the summer of 2011 which investigated the costs and potential savings from utilizing conservation corps crews to accomplish cyclic maintenance activities at national parks. Utilizing crew composition and costs provided by one typical conservation corps and some high level assumptions about the type of work in the NPS 5-year cyclic work plan, the analysis found that using conservation corps crews could save up to 44% over using NPS crews. The conservation corps are continually faced with the issue of being able to defensibly describe the benefits of corps projects so additional analysis that utilized specific projects to estimate savings was performed. With actual completed project information and costs provided by the PLSC, estimates for performing the same project work using contractor and NPS crews were completed using the NPS Cost Estimating Software System (CESS). The CESS is based on published, industry standard cost data from R.S. Means, built on an industry standard platform known as Timberline Estimating, relies on a robust database of over 65,000 line items and 9,000 assemblies, and can be used to estimate small and large projects of a wide range of types.

The final results analyzed 15 geographically dispersed projects ranging in complexity with general focus on trail related projects. **On average, using conservation corps crews instead of NPS crews saved 65% with the minimum savings just 3% and the maximum savings 87%**. The analysis found that the **savings using conservation corps instead of contractor crews were even more significant with average savings of 83% and over $130,000 per project**. In general, the conservation corps crews were consistently the least expensive alternative. **In dollars, for all 15 selected projects the average savings was over $50,000 over NPS crew costs (or $131,000 over contractor crews)** with a **minimum savings of just $237** and a **maximum savings over $224,000.** See Table 1 for a summary.

TABLE 1: PROJECT SAVINGS

Projects	Amount of savings	Minimum	Average	Maximum
2, 3, 5, 7, 8, 12, 13	Savings less than $15,000	$237	$6,826	$13,746
4, 10, 11, 15, 16	Savings between $15,000 and $100,000	$20,360	$49,783	$77,002
6, 9, 14	Savings greater than $100,000	$114,551	$151,486	$224,172
2 through 16		$237	$50,077	$224,172

Generally, there were three different groupings of projects based on the savings:

- Projects with savings less than $15,000
- Projects with savings between $15,000 and $100,000
- Projects with savings greater than $100,000

The three groupings based on savings matched the breakdown by complexity: small, medium and large projects. As expected, the contracted cost was always greater than the NPS cost due to the higher labor costs for the contracted crews. A summary of the contractor, NPS and Corps costs can be reviewed at the end of the document in Table 2: Summary Project Data | Corps, Contracted and NPS Cost Comparison. Two additional tables at the end of the document provide additional information by breaking down the Contracted and NPS costs into the assemblies and line items that were utilized to build the estimate. See Table 3: Contractor Cost by Assembly and Project and Table 4: NPS Cost by Assembly and Project for these details. There were a total of 13 different assemblies and one line item for downed tree removal utilized for the project cost estimates.

Methodology

The steps outlined below defined the methodology used for this analysis.

1. **Collect Sample Projects.** A selection of three actual projects provided the starting point for analysis as the project team elected to run through the process from start to finish for a small sample size to determine what would work and what would need to be refined for roll-out to additional conservation corps. Only one project was eliminated from consideration because of anomalies in the data provided and the lack of information necessary for proper follow-up.
2. **Create Estimates in CESS using data from Sample Projects.** Cost estimates in CESS were developed by matching the project descriptions and task work to individual line items and cost assemblies from the database. Initially three estimates were created, one for the contracted cost, one for the NPS cost and one for the conservation corps. It was determined that only the contracted and NPS CESS cost estimates would be necessary as the information provided by the conservation corps were the actual costs to the NPS for actual projects the conservation corps completed at national parks.
3. **Analyze estimates and determine final requirements for data collection.** Once all three projects had been estimated in the NPS CESS, a detailed data collection document was created that highlighted the most commonly used trails line items and assemblies and the required data elements necessary to generate proper estimates in the system.
4. **Collect larger sample size**. The data collection document was utilized to collect project data for an additional 13 actual completed projects representing nine different conservation corps.
5. **Determine cost savings.** Using the project data and the NPS CESS, two estimates per project were created and summarized in Excel. The total cost savings was determined by comparing the NPS and contractor crew estimates to the actual cost to the NPS for engaging the conservation corps to complete the projects.

Table 2: Summary Project Data | Corps, Contracted and NPS Cost Comparison

Proj. #	Corps	Corps Code	Desc.	Park	PAC	PCODE	Date	Corps Cost	Contractor Est.	NPS Est.	Lowest	Savings (Max - M
2	Southwest Conservation Corps	SCC	Fencing for Horse Protection	Mesa Verde NP	MEVE	P404	June 2012	$6,000	$11,910	$6,237	Corps	$237
3	Southwest Conservation Corps	SCC	Trail Rehabilitation	Great Sand Dunes	GRSA	P402	June 2012	$24,000	$68,584	$37,746	Corps	$13,746
4	Southwest Conservation Corps	SCC	Mosca Pass Trail	Great Sand Dunes NP	GRSA	P402	June 2012	$12,000	$61,156	$32,360	Corps	$20,360
5	Northwest Youth Corps	NYC	Pumice Flat Trail	Crater Lake NP	CRLA	P219	August 2012	$25,000	$72,540	$37,734	Corps	$12,734
6	Conservation Corps North Bay	CCNB	Annual PLC Trail Maintenance	Point Reyes National Seashore	PORE	P415	December 2012	$77,000	$639,462	$301,172	Corps	$224,172
7	Montana Conservation Corps	MCC	Grinnell Glacier and Grinnell Lake Trails	Glacier National Park	GLAC	P162	August 2012	$17,200	$32,240	$17,805	Corps	$605
8	Utah Conservation Corps	UCC	Chicken Creek Nature and Historic Quarry trails	Fossil Butte National Monument	FOBU	P042	July 2012	$8,550	$24,360	$10,018	Corps	$1,468
9	Nevada Conservation Corps	NCC	Trail Maintenance	Great Basin National Park	GRBA	P409	August 2012	$69,863	$397,837	$184,414	Corps	$114,551
10	Conservation Corps MN & IA	CCMI	Voyageurs National Park (P12AC100208)	Voyageurs National Park	VOYA	P005	September 2012	$20,876	$128,171	$70,166	Corps	$49,290
11	Conservation Corps MN & IA	CCMI	Apostle Islands National Lakeshore_(P12AC10025	Apostle Islands National Lakeshor	APIS	P090	August 2012	$21,000	$139,098	$70,552	Corps	$49,552
12	Coconino Rural Environment Corps	CREC	Lava Flow Trail Project	Sunset Crater	SUCR	P111	October 2012	$22,000	$53,279	$35,024	Corps	$13,024
13	Conservation Corps MN & IA	CCMI	Youth – Isle Royale National Park_(P12AC30197)	Isle Royale National Park	ISRO	P070	September 2012	$21,420	$56,372	$27,389	Corps	$5,969
14	Rocky Mountain Youth Corps, NM	RMYC	Bandelier National Monument	Bandelier National Monument	BAND	P343	October 2011	$25,000	$337,639	$140,736	Corps	$115,736
15	Rocky Mountain Youth Corps, NM	RMYC	Bandelier National Monument	Bandelier National Monument	BAND	P343	September 2012	$36,000	$175,511	$88,711	Corps	$52,711
16	Southwest Conservation Corps	SCC	Sand Creek Trail	Great Sand Dunes	GRSA	P402	July 2012	$12,000	$172,469	$89,002	Corps	$77,002

Table 3: Contractor Cost by Assembly and Project

Assembly	Desc	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16
G2040.910-N050	Campground, Veg. Clearing/Replanting		$3,052													
G2040.930-N020	Trail, Retainer Bar, Timber		$128	$559			$123	$13,706	$28,136							
G2040.930-N021	Trail Steps, Stone				$6,995				$10,150					$1,800	$200	
G2040.930-N100	Trail, Existing Brush Clearing		$19,197	$27,923	$17,260	$166,229	$138			$53,511	$72,567	$402	$31,715		$28,661	$46,979
G2040.930-N105	Trail, New Brush Clearing		$735				$8				$14					
G2040.930-N805	Stone Retaining Wall		$3,675						$30,009		$5,676	$29,573				
G2040.930-N911	Trail, Water Bar - Timber		$690	$330					$977					$4,263	$15,492	
G2040.930-N912	Trail, Water Bar - Stone		$969	$761	$16,556		$10,765		$3,593					$8,016	$2,481	
G2040.930-N913	Trail, Water Bar - Swale					$6,640									$1,375	
G2041.100-N003	Boardwalk, Typical on grade									$18,599						
G2050.100-N010	Landscape Planting Activities		$194													
MG2040 N215	Trail- Existing, Repair Tread Surface		$9,947			$186,896	$7,105		$150,954					$175,880	$50,534	$26,526
MG2040 N170	Fencing	$6,701														
3113.1320.3100	Downed Tree Removal			$4,834												$23,527
	Design Contingency (Std 20%)	$1,340	$7,717	$6,881	$8,162	$71,953	$3,628	$2,741	$44,764	$14,422	$15,651	$5,995	$6,343	$37,992	$19,749	$19,406
	Add-ons (G&A, Overhead, Profit)	$3,869	$22,282	$19,868	$23,566	$207,743	$10,474	$7,914	$129,242	$41,639	$45,189	$17,309	$18,314	$109,690	$57,018	$56,030
	Project Totals	**$11,911**	**$68,586**	**$61,156**	**$72,539**	**$639,461**	**$32,241**	**$24,362**	**$397,825**	**$128,171**	**$139,097**	**$53,279**	**$56,372**	**$337,641**	**$175,510**	**$172,469**

Table 4: NPS Cost by Assembly and Project

Assembly	Desc	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16
G2040.910-N050	Campground, Veg. Clearing/Replanting		$1,981													
G2040.930-N020	Trail, Retainer Bar, Timber		$68	$303			$56	$5,636	$14,938							
G2040.930-N021	Trail Steps, Stone				$3,744				$5,387					$988	$110	
G2040.930-N100	Trail, Existing Brush Clearing		$11,591	$14,073	$8,131	$69,601	$74			$25,994	$36,574	$254	$15,409		$17,282	$23,678
G2040.930-N105	Trail, New Brush Clearing		$369				$6				$11					
G2040.930-N805	Stone Retaining Wall		$2,082						$19,737		$3,108	$19,451				
G2040.930-N911	Trail, Water Bar - Timber		$400	$184					$545					$2,377	$10,075	
G2040.930-N912	Trail, Water Bar - Stone		$557	$430	$9,355		$6,187		$2,030					$4,607	$1,426	
G2040.930-N913	Trail, Water Bar - Swale					$2,688									$557	
G2041.100-N003	Boardwalk, Typical on grade									$13,482						
G2050.100-N010	Landscape Planting Activities		$160													
MG2040 N215	Trail- Existing, Repair Tread Surface		$4,027			$97,152	$3,693		$61,116					$71,207	$20,459	$10,749
MG2040 N170	Fencing	$3,509														
3113.1320.3100	Downed Tree Removal			$3,217												$15,656
	Design Contingency (Std 20%)	$702	$4,247	$3,641	$4,246	$33,888	$2,003	$1,127	$20,751	$7,895	$7,939	$3,941	$3,082	$15,836	$9,982	$10,017
	Add-ons (G&A, Overhead, Profit)	$2,026	$12,262	$10,513	$12,259	$97,842	$5,784	$3,254	$59,911	$22,795	$22,920	$11,378	$8,898	$45,721	$28,819	$28,920
	Project Totals	**$6,237**	**$37,744**	**$32,362**	**$37,735**	**$301,171**	**$17,803**	**$10,018**	**$184,415**	**$70,166**	**$70,552**	**$35,024**	**$27,389**	**$140,736**	**$88,710**	**$89,020**
	Corps Network Project Totals	**$6,000**	**$24,000**	**$12,000**	**$25,000**	**$77,000**	**$17,200**	**$8,550**	**$69,863**	**$20,876**	**$21,000**	**$22,000**	**$21,420**	**$25,000**	**$36,000**	**$12,000**
	Estimated Savings using Corps Crews	**$237**	**$13,744**	**$20,362**	**$12,735**	**$224,171**	**$603**	**$1,468**	**$114,552**	**$49,290**	**$49,552**	**$13,024**	**$5,969**	**$115,736**	**$52,710**	**$77,020**