



O2X HUMAN PERFORMANCE PROGRAM



CAPABILITIES OVERVIEW



ABOUT O2X

O2X provides customized performance programs for public safety departments, the military, and federal agencies that optimize every aspect of their most valuable resource: people. O2X's holistic EAT SWEAT THRIVE methodology is designed to meet the unique demands of tactical athletes.



EAT

Fuel cognitive function, boost energy, and enhance physical health



SWEAT

Reduce injury risk, maximize performance, and increase durability



THRIVE

Optimize mental health, manage fatigue, and build overall resilience

O2X CAPABILITIES

O2X is the most comprehensive education and training program in the industry serving the needs of tactical athletes.

INTEGRATED SPECIALIST PROGRAM

PROGRAM MANAGERS

O2X embeds senior human performance experts with experience building and developing impactful programs. The Program Managers work collaboratively with leadership and members to assess, consult, and guide the implementation of a comprehensive human performance platform.

ON-SITE SPECIALISTS

Fully vetted and certified elite human performance professionals who specialize in one or more areas of performance, stationed on-site at an organization. Responsible for optimizing the mental, physical, and emotional health of members, increasing productivity, and expanding longevity at work and at home.

PROGRAM RESOURCES

Virtual resources including the mobile app and web-based portal housing custom programming, workouts, and direct access to the On-Site Specialists. **Assessments & reporting** leverage data to develop insights into the health and performance of the organization. The **Client Services Team** provides support for all aspects of the Integrated Specialist Program including leadership communications, deliverable creation, and reach-back support for the On-Site Specialists.

CUSTOMIZED TRAINING & EDUCATION

Completely customized and tailored in-person and virtual training and education delivered by professionals who are experts in their respective fields. A comprehensive and science-backed approach to personnel readiness, resilience, and retention, providing clear and actionable takeaways. Courses include both general performance optimization as well as skills-based training focused on enhancing on-the-job tasks.

CONSULTING (Research | Testing | Evaluation)

As the leading expert on elevating performance in the tactical community, O2X can absorb complex problem sets for our clients and deliver actionable solutions. This work can include, but is not limited to, program validation studies, needs analysis, facility design, equipment acquisition, testing and assessment design, thought partnership, and a variety of consulting projects to support organizational objectives.

YEAR TO DATE O2X IMPACT



3-5x ROI For organizations with integrated On-Site Specialist Programs



40% Reduction in time-off from injuries at agencies with an On-Site Specialist



100% Success rate improving KPIs in training and annual performance assessments



On-Site Specialist Programs integrated into dozens of federal, state, and local agencies nationwide



Customized training and education events delivered to hundreds of organizations across the US



Tens of thousands of users on O2X virtual platforms

OVERALL PROGRAM PARTICIPANT FEEDBACK (10,000+ Responses)

"I feel like this is potentially life changing (1% at a time) both personally and for the family unit. Important tools – build a network – found access to resources for support. Thank you."

Overall level of instruction:

4.86 / 5.0



Overall experience with O2X:

4.82 / 5.0



97.7% believe O2X met their expectations
98.6% believe O2X could make a positive impact on their unit

"Keep screaming this stuff from the rooftop! Our community needs to hear this and get smarter on all the subjects."

WHO WE SERVE



and more.

O2X Human Performance is a service-disabled veteran-owned small business, comprised of U.S. Special Operations veterans, professional athletes, Olympians, public safety officers, and hundreds of Human Performance subject matter experts.



INTEGRATED SPECIALIST PROGRAM



The O2X Integrated Specialist Program identifies and targets organizational needs through observation, education, training, and analysis. Our science-backed approach improves the operational capability of your organization.



INTEGRATED SPECIALIST PROGRAM



ON-SITE SPECIALISTS

- Fully vetted & certified elite human performance professionals stationed on-site at an organization
- Optimize the mental, physical, and emotional health of members
- Increase member productivity and longevity

VIRTUAL RESOURCES

- Remote support including the mobile app and web-based portal
- Includes custom programming, workouts and coaching, and reach-back support from our network of Human Performance Specialists

ASSESSMENTS & REPORTING

- O2X leverages data to develop insights into the health and performance of your organization
- Conduct needs analyses; track program impact and return on investment; and develop an informed roadmap for program growth

CLIENT SERVICES TEAM

- Provides support for all aspects of the Integrated Specialist Program
- Includes program implementation roadmapping, reach-back for the On-Site Specialist, leadership communications, and deliverable creation

- Program Managers
- Athletic Trainers
- Physical Therapists
- Strength & Conditioning Coaches
- Registered Dietitians
- Mental Performance & Behavioral Health Specialists
- and more

I cannot overstate how beneficial this program is for our department. The O2X staff and program provide value that far exceeds anything else I've experienced.

Integrated Specialist Programs can range from a single On-Site Specialist to a full team all backed by the power of O2X.

Interested in bringing the O2X Integrated Specialist Program to your organization?
Reach out to our team at info@o2x.com or on our website o2x.com.



CUSTOMIZED TRAINING & EDUCATION



O2X delivers customized and tailored in-person and virtual training and education presented by professionals who are experts in their respective fields. The O2X EAT SWEAT THRIVE methodology is a comprehensive and science-backed approach to personnel readiness, resilience, and retention, providing clear and actionable takeaways. Courses include both general performance optimization as well as skills-based training focused on enhancing on-the-job tasks.

"This was one of the most comprehensive experiences I have ever encountered. I would recommend this course to all first responders and anyone else that would like to delve into optimization of the mind and body."

CUSTOMIZED TRAINING AND EDUCATION



EXPEDITIONARY

Successful programs in the tactical community are based in the field; we deliver impact where your team works, trains and lives.

Facility-based programs are unrealistic for busy units balancing dynamic operational and training rotations, so the O2X approach brings our experts, training, and resources to you.



CUSTOMIZED

The O2X program is shaped to best match the needs of your organization.

Leveraging our comprehensive curriculum, training and education, on-site program support, and virtual resources, we will develop the right solution for your mission, size, and budget.



SCALABLE

With a global reach and hundreds of human performance specialists, O2X is postured to support departments and agencies of all sizes.

From single day courses to multi-month training events, our model adapts and can be deployed rapidly.

Each in-person event incorporates O2X's integrated approach to training and education based on our proven EAT SWEAT THRIVE methodology. To ensure that an in-person workshop targets the specific demands of your organization, O2X works directly with you to identify key requirements and develop a course curriculum and structure that meets your needs.



EAT

Fuel cognitive function, boost energy, and enhance physical health



SWEAT

Reduce injury risk, maximize performance, and increase durability



THRIVE

Optimize mental health, manage fatigue, and build overall resilience

The O2X program can be implemented in any location or facility. In-person O2X workshops are fully accredited for a variety of continuing education credits.



CONSULTING

Research | Testing | Evaluation



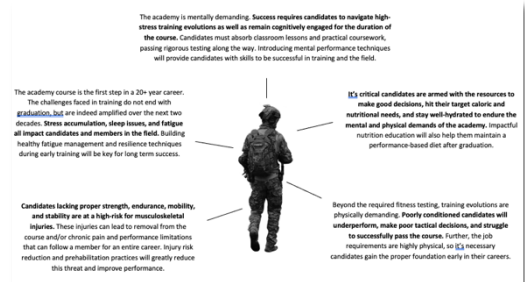
“O2X Human Performance has shown our department that change is possible and that personal goals lead to team goals. Small changes each day can really lead to major improvements in professional and personal lives.”

As the leading experts on elevating performance in the tactical community, O2X can absorb complex problem sets for our clients and deliver actionable solutions. This work can include, but is not limited to, program validation studies, needs analysis, facility development and remodel, equipment acquisition, testing and assessment design, and a variety of consulting projects to support organizational objectives.

NEEDS ANALYSIS

O2X has partnered with local, state, and federal agencies to complete comprehensive analysis of their members, job functions, mission sets, and organizational profiles. This process provides a status of the force snapshot for leadership while helping to chart the way ahead with resources that target specific challenges facing the organization.

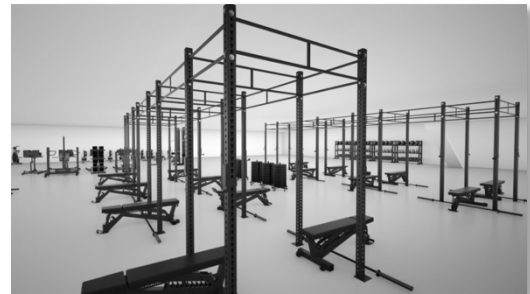
USMS NEEDS ANALYSIS



FACILITY DESIGN & EQUIPMENT ACQUISITION

Backed by tremendous experience and industry relationships, O2X supports the development of new training facilities and remodels existing ones. Our experts understand the requirements to maximize efficiency, economy, and safety in training spaces and can help leadership assess, design, and acquire the resources for an elite facility that meets your needs.

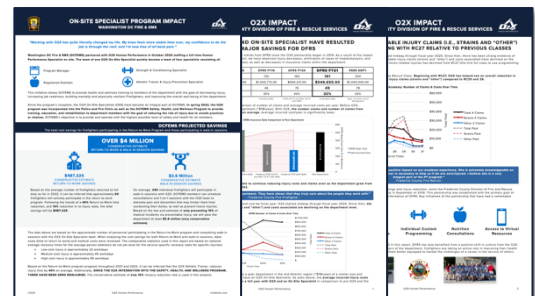
DEA FLEX HOUSE DESIGN



REPORTING & PROGRAM VALIDATION

Leveraging data collected through assessments, training, observations, and historical measures of performance, injury, and status of the force, O2X will develop valuable insights. Through a collaborative strategy, grounded in data-driven analysis, we focus our efforts on high-impact reporting that supports agency initiatives.

DCFEMS & FCFR COST SAVINGS



TESTING & ASSESSMENT

What you measure improves. O2X can help shape effective physical and mental performance evaluations, custom tailored to align with the demands on your organization. Our team has helped large and small federal and municipal agencies to evaluate their assessments, elevate protocols, and design new tests from scratch. Our science-backed process completes the requisite research, testing, and validation; as well as support for implementation.

FBI STRENGTH & MOBILITY ASSESSMENT

Event 1 – Dead Hang					
1 Point	2 Points	3 Points	4 Points	5 Points	
:36-:55	:56-1:20	1:21-1:45	1:46-2:10	2:11+	
Event 2 – 400 Yard Movement					
1 Point	2 Points	3 Points	4 Points	5 Points	
1:58-1:44	1:43-1:29	1:28-1:14	1:11-:57	:58-:44	
Event 3 – Stair Climb					
1 Point	2 Points	3 Points	4 Points	5 Points	
1:39-1:26	1:25-1:10	1:09-:56	:51-:37	:38-:24	
Event 4 – Sled Push					
1 Point	2 Points	3 Points	4 Points	5 Points	
:20-:18	:17-:15	:14-:12	:11-:09	sub :08	
Event 5 – Sandbag Carry					
1 Point	2 Points	3 Points	4 Points	5 Points	
1:24-1:15	1:14-1:05	1:04-:55	:54-:45	sub :44	
Event 6 – Box Step Ups					
1 Point	2 Points	3 Points	4 Points	5 Points	
30-35	36-40	41-45	46-50	51+	
Event 7 – Ladder Climb					

Integrated Specialist Program Impact

O2X Human Performance &
Washington DC Fire and EMS





WASHINGTON DC FIRE & EMS



"Working with O2X has quite literally changed my life. My knee feels more stable than ever, my confidence to do the job is through the roof, and I'm now free of all back pain."

Washington DC Fire & EMS (DCFEMS) partnered with O2X Human Performance in October 2020 staffing a full time Human Performance Specialist on site. The team of one O2X On-Site Specialist quickly became a team of four specialists consisting of:



Program Manager



Registered Dietitian



Strength & Conditioning Specialist



Athletic Trainer & Injury Prevention Specialist

This initiative allows DCFEMS to provide health and wellness training to members of the department with the goal of decreasing injury, increasing job readiness, building mentally and physically resilient Firefighters, and improving the overall well-being of the department.

Since the program's inception, the O2X On-Site Specialists (OSS) have become an integral part of DCFEMS. In spring 2022, the O2X program was incorporated into the Police and Fire Clinic as well as the DCFEMS Safety, Health, and Wellness Program to provide training, education, and rehabilitation to department members with the goal of reducing the risk of injury due to unsafe practices or choices. DCFEMS's objective is to provide and operate with the highest possible level of safety and health for all members.

DCFEMS PROJECTED SAVINGS

The total cost savings for firefighters participating in the Return-to-Work Program and those participating in walk-in sessions

OVER \$4 MILLION

CONSERVATIVE ESTIMATE
RETURN-TO-WORK & WALK IN SESSION SAVINGS



\$487,325

CONSERVATIVE ESTIMATE
RETURN-TO-WORK SAVINGS

Based on the average number of firefighters returned to full duty so far in 2022, it can be inferred that approximately **60** firefighters will actively participate in the return to work program. Following the trends of a **40%** Return-to-Work time reduction, and **10%** reduction in re-injury rates, the total savings will be **\$487,325**.



\$3.6 Million

CONSERVATIVE ESTIMATE
WALK-IN SESSION SAVINGS

On average, **240** individual firefighters will participate in walk-in sessions with O2X. DCFEMS members can schedule consultations and 1-on-1 sessions with the O2X team to alleviate pain and discomfort that may hinder them from conducting their duties, as well as prevent future injuries. Based on the low end estimate of **only preventing 10%** of medical incidents via preventable injury, we will save the department at least **\$3.6 million (very conservative estimate)**.

The data above are based on the approximate number of personnel participating in the Return-to-Work program and completing walk-in sessions with the O2X On-Site Specialist team. When analyzing the cost savings for both Return-to-Work and walk-in sessions, labor costs (time to return to work) and medical costs were reviewed. The comparative statistics used in this report are based on national average recovery times for the average person (statistics do not yet exist for fire service specific recovery rates for specific injuries):

- Low-cost injury is approximately 22 workdays
- Medium-cost injury is approximately 45 workdays
- High-cost injury is approximately 90 workdays

Based on the Return-to-Work program progress throughout 2021 and 2022, it can be inferred that the O2X Athletic Trainer, reduces injury time by **40%** on average. Additionally, **SINCE THE O2X INTEGRATION INTO THE SAFETY, HEALTH, AND WELLNESS PROGRAM, THERE HAVE BEEN ZERO REINJURIES**. The conservative estimate of **only 10%** reinjury reduction rate is used in this analysis.



WASHINGTON DC FIRE & EMS



ANALYSIS

The table below displays the calculations for the Return-to-Work and walk-in session savings.

Low Cost Injury - 100%					Medium Cost Injury - 25%					Actual - 70% Low Cost Injury, 20% Medium Cost, 10% High Cost				
Savings (Labor + Medical) - OOW					Savings (Labor + Medical) - OOW					Savings (Labor + Medical) - OOW				
Time Reduction OOW					Time Reduction OOW					Time Reduction OOW				
	50%	40%	30%	20%		50%	40%	30%	20%		50%	40%	30%	20%
Recurrence Reduction	15%	\$478,616	\$438,236	\$397,855	\$357,475	\$561,448	\$500,878	\$440,307	\$379,737	\$654,265	\$577,543	\$500,821	\$424,098	
	10%	\$386,377	\$345,997	\$305,617	\$265,237	\$475,249	\$414,679	\$354,109	\$293,538	\$564,047	\$487,325	\$410,603	\$333,880	
	5%	\$294,139	\$253,759	\$213,379	\$172,999	\$389,050	\$328,480	\$267,910	\$207,339	\$473,830	\$397,107	\$320,385	\$243,663	
Savings (Labor + Medical) - Walk-Ins					Savings (Labor + Medical) - Walk-Ins					Savings (Labor + Medical) - Walk-Ins				
OOW Reduction	15%	\$1,462,205	\$1,462,205	\$1,462,205	\$1,462,205	\$2,925,477	\$2,925,477	\$2,925,477	\$2,925,477	\$5,399,120	\$5,399,120	\$5,399,120	\$5,399,120	
	10%	\$974,803	\$974,803	\$974,803	\$974,803	\$1,950,318	\$1,950,318	\$1,950,318	\$1,950,318	\$3,599,413	\$3,599,413	\$3,599,413	\$3,599,413	
	5%	\$487,402	\$487,402	\$487,402	\$487,402	\$975,159	\$975,159	\$975,159	\$975,159	\$1,799,707	\$1,799,707	\$1,799,707	\$1,799,707	
Total Savings - OOW + Walk-Ins					Total Savings - OOW + Walk-Ins					Total Savings - OOW + Walk-Ins				
Total Success Rate	15%	\$1,940,821	\$1,900,441	\$1,860,061	\$1,819,680	\$3,486,925	\$3,426,355	\$3,365,785	\$3,305,214	\$6,053,385	\$5,976,663	\$5,899,940	\$5,823,218	
	10%	\$1,361,181	\$1,320,801	\$1,280,421	\$1,240,040	\$2,425,567	\$2,364,997	\$2,304,427	\$2,243,856	\$4,163,461	\$4,086,738	\$4,010,016	\$3,933,294	
	5%	\$781,541	\$741,161	\$700,781	\$660,400	\$1,364,209	\$1,303,639	\$1,243,069	\$1,182,498	\$2,273,536	\$2,196,814	\$2,120,091	\$2,043,369	
* Conservative estimates														
\$1,320,801					\$2,364,997					\$4,086,738				

Using national averages and department data, we were able to compile the following conservative assumptions:

Return-to-Work (OOW)

- 60 Firefighters in the Return-to-Work program per year (current)
- 40% return to work time reduction (low end)
- 10% reduction of reinjury (ultra low end)
- 70% low-cost injury, 20 % medium-cost injury, 10% high-cost injury (actual)

Walk-In Sessions

- 240 unique firefighters attend walk in sessions per year (actual)
- 10% of walk-ins prevent injury (ultra low end)
- 70% low-cost injury, 20% medium-cost injury, 10% high-cost injury (actual)

CURRENT

Currently, the cost of the total O2X Program equals \$800,000 per year. This program includes four full-time O2X On-Site Specialists, unlimited virtual resources, and ongoing organizational and individual reporting. As noted above, the program currently saves the department **over \$4 million per year on a low-end, conservative estimate.**

WAY AHEAD

With roughly 2,000 operational firefighters over 40 firehouses, doubling the team size from four O2X On-Site Specialists to eight On-Site Specialists will easily double the current savings. Additionally, this growth will not only allow us to maximize the throughput of both the return-to-work program and walk-ins, but will also provide the ability to actively visit more stations throughout the city and engage with more members.

Our recommendation is to increase the size of the On-Site Specialist team to eight in order to double the current savings and provide training, education, and rehabilitation to department members across the city.



RAW CALCULATIONS FOR REFERENCE



The following salaries/hourly rates are estimated based on the 2021 average time in grade for the rank:

- Firefighter with 8 years on the job - no longevity
- Sergeant with 15 years - 5% longevity
- Lieutenant with 20 years - 10% longevity
- Lieutenant/Paramedic with 20 years - 10% longevity
- Captain with 25 years - 15% longevity
- Battalion Chief - 25 years -15% longevity
- Deputy Chief - 25 years -15% longevity

DC Cost Savings Analysis								
# FFs OOW / Qtr	20	12	8	8	4	4	4	15
	5	3	2	2	1	1	1	
Rank	FF	Sgt	LT	LT/Paramedic	CPT	Batt Chief	Deputy Chief	
Salary								
Per Hour	\$34	\$40	\$51	\$55	\$60	\$68	\$86	
Overtime	\$51	\$60	\$77	\$83	\$90	\$68	\$86	
Avg # of Days OOW	OOW Excess Cost / QTR							
22	\$30,444	\$21,432	\$18,410	\$19,909	\$10,756	\$0	\$0	\$100,950
National Low Cost Average	\$44,651	\$31,433	\$27,001	\$29,201	\$15,775	\$0	\$0	\$148,061
30	\$60,888	\$42,863	\$36,820	\$39,819	\$21,511	\$0	\$0	\$201,901
45	\$91,332	\$64,295	\$55,230	\$59,728	\$32,267	\$0	\$0	\$302,851
60	\$121,776	\$85,726	\$73,639	\$79,638	\$43,022	\$0	\$0	\$403,802
75	\$152,220	\$107,158	\$92,049	\$99,547	\$53,778	\$0	\$0	\$504,752
90	\$182,664	\$128,589	\$110,459	\$119,457	\$64,533	\$0	\$0	\$605,703
Time Reduction OOW	OOW Savings / QTR							
40%	\$12,178	\$8,573	\$7,364	\$7,964	\$4,302	\$0	\$0	\$40,380
	\$17,860	\$12,573	\$10,800	\$11,680	\$6,310	\$0	\$0	\$59,224
	\$24,355	\$17,145	\$14,728	\$15,928	\$8,604	\$0	\$0	\$80,760
	\$36,533	\$25,718	\$22,092	\$23,891	\$12,907	\$0	\$0	\$121,141
	\$48,710	\$34,290	\$29,456	\$31,855	\$17,209	\$0	\$0	\$161,521
	\$60,888	\$42,863	\$36,820	\$39,819	\$21,511	\$0	\$0	\$201,901
	\$73,065	\$51,436	\$44,184	\$47,783	\$25,813	\$0	\$0	\$242,281
OOW Savings / Year								
	\$48,710	\$34,290	\$29,456	\$31,855	\$17,209	\$0	\$0	\$161,521
	\$71,442	\$50,293	\$43,202	\$46,721	\$25,240	\$0	\$0	\$236,897
	\$97,421	\$68,581	\$58,912	\$63,710	\$34,418	\$0	\$0	\$323,041
	\$146,131	\$102,871	\$88,367	\$95,566	\$51,627	\$0	\$0	\$484,562
	\$194,841	\$137,162	\$117,823	\$127,421	\$68,836	\$0	\$0	\$646,083
	\$243,552	\$171,452	\$147,279	\$159,276	\$86,045	\$0	\$0	\$807,604
	\$292,262	\$205,743	\$176,735	\$191,131	\$103,254	\$0	\$0	\$969,124
Medical Costs / Incident								
High Cost	\$768,653	\$768,653	\$768,653	\$768,653	\$768,653	\$768,653	\$768,653	
Medium Cost	\$183,013	\$183,013	\$183,013	\$183,013	\$183,013	\$183,013	\$183,013	
Low Cost	\$30,746	\$30,746	\$30,746	\$30,746	\$30,746	\$30,746	\$30,746	
Medical Savings / Year								
10%	\$153,731	\$92,238	\$61,492	\$61,492	\$30,746	\$30,746	\$30,746	
High Cost	\$73,205	\$43,923	\$29,282	\$29,282	\$14,641	\$14,641	\$14,641	
Medium Cost	\$43,045	\$25,827	\$17,218	\$17,218	\$8,609	\$8,609	\$8,609	
Low Cost								
Total Savings (Labor + Medical) Per Year								
22 Days Avg Low Cost Injury	\$64,228	\$42,082	\$32,672	\$34,351	\$18,072	\$6,026	\$6,026	\$203,458
45 Days Avg Medium Cost Injury	\$43,867	\$29,359	\$23,530	\$24,970	\$13,254	\$2,928	\$2,928	\$140,835
90 Days Avg High Cost Injury	\$44,599	\$29,798	\$23,823	\$25,262	\$13,400	\$3,075	\$3,075	\$143,032
	\$152,695	\$101,239	\$80,024	\$84,583	\$44,726	\$12,029	\$12,029	\$487,325 OOW TOTAL
Yearly % Medical Cases								
High Cost	10%	10%	10%	10%	10%	10%	10%	
Medium Cost	20%	20%	20%	20%	20%	20%	20%	
Low Cost	70%	70%	70%	70%	70%	70%	70%	
	100%	100%	100%	100%	100%	100%	100%	
Yearly Walk-in Appointments								
Total	80	48	32	32	16	16	16	
240								
Medical Incidents Prevention	8	4.8	3.2	3.2	1.6	1.6	1.6	
10%								
Medical Cost Saved (Low Cost Injury)	\$245,969	\$147,581	\$98,388	\$98,388	\$49,194	\$49,194	\$49,194	\$737,906
OOW Excess Cost Saved	\$71,442	\$50,293	\$43,202	\$46,721	\$25,240	\$0	\$0	\$236,897
Total Medical and Labor Savings	\$317,411	\$197,874	\$141,589	\$145,108	\$74,434	\$49,194	\$49,194	\$974,803
Medical Cost Saved (Medium Cost Injury)	\$464,998	\$278,999	\$185,999	\$185,999	\$93,000	\$93,000	\$93,000	\$1,394,994
OOW Excess Cost Saved	\$79,235	\$55,779	\$47,915	\$51,818	\$27,993	\$0	\$0	\$262,740
Total Medical and Labor Savings	\$544,234	\$334,778	\$233,914	\$237,817	\$120,993	\$93,000	\$93,000	\$1,657,735
Medical Cost Saved (High Cost Injury)	\$1,079,920	\$647,952	\$431,968	\$431,968	\$215,984	\$215,984	\$215,984	\$3,239,760
OOW Excess Cost Saved	\$108,462	\$76,354	\$65,588	\$70,931	\$38,319	\$0	\$0	\$359,653
Total Medical and Labor Savings	\$1,188,382	\$724,306	\$497,556	\$502,899	\$254,303	\$215,984	\$215,984	\$3,599,413 WALK-INS TOTAL

Integrated Specialist Program Impact

O2X Human Performance &
Arlington County Fire Department





ARLINGTON COUNTY FIRE DEPARTMENT



"I can honestly say I am an improved employee because of [Trevor's] teaching and coaching. I look forward to a continued working relationship with him. The Arlington County Fire Department has been well served by [Trevor's] work, dedication, and leadership."
- Battalion Chief -

Arlington County Fire (ACFD) partnered with O2X Human Performance in April 2021 staffing a full time Human Performance Specialist on site. This initiative allowed ACFD to provide health and wellness training to members of the department with the goal of decreasing injury, increasing job readiness, building mentally and physically resilient Firefighters, and improving the overall well-being of the department.

Since the program's inception, the O2X On-Site Specialist (OSS), Trevor Sheasley, has become an integral member of ACFD. **Trevor's training and education has been integrated into policy, requiring members of ACFD to receive a mandatory O2X referral after their NFPA 1582 physical.** This policy is in place to ensure all firefighters maintain a satisfactory level of fitness in order to perform their operational duties safely and effectively.

\$474,770+

2022 DEPARTMENT COST SAVINGS

The following data provide three concrete examples of Arlington County Fire Department cost savings in 2022



\$54,000+ SAVINGS

CHRONIC BACK PAIN RECOVERY

According to the International Association of Fire Fighters' annual Death and Injury Survey, sprains and strains routinely account for about 50 percent of all line-of-duty injuries, and back injuries account for approximately 50 percent of all line-of-duty injury retirements each year. These injuries may result in significant lost time and medical expense¹.

An ACFD Captain suffering from chronic low back pain sought out the O2X On-Site Specialist, Trevor, for injury recovery as an alternative to medical interventions and taking time off from work. This Captain experienced back pain sleeping, standing, driving for extended periods, and from overexertion on calls. Chronic back pain requires an average of 12+ weeks, sometimes longer, for recovery. After working with Trevor, this Captain was able to decrease pain, improve performance, and avoid any loss of work.

Working with Trevor, this Captain recovered from his chronic pain without time off, amounting to a projected savings of over \$54,000. This total only reflects an estimated 12 weeks of backfill salary and overtime costs and does not include the cost of medical bills, treatments, surgery, etc, that may have been incurred if the injury had progressed.



\$315,000+ SAVINGS

3 MEMBERS RETURN-TO-WORK AFTER PASSING METs STANDARDS

In December 2021, ACFD implemented a mandatory referral policy that included the O2X On-Site Specialist, Trevor. This policy requires members who fail their body composition or Metabolic Equivalents (METs) standards to meet regularly with Trevor to develop and implement a plan for returning to full duty. In-person training with Trevor helps members increase their METs to return to full duty, resulting in significant cost savings for the county.

In the first quarter of 2022, three members who were not able to work due to failing their annual physical began working with Trevor. After a few weeks following Trevor's training programs and injury recovery protocols, all were able to pass their Metabolic Equivalents test (METs) and successfully return to work.

If these three members were unable to pass the test and return to work, it could have cost the department more than \$315,000 to hire, train, and outfit three new members to refill the vacancies (\$105,000 per recruit). Because these three members passed the METs standards working with Trevor, the department avoided hiring and training replacements. The expedient return to work process facilitated by Trevor also reduced the time the department was required to pay overtime rates to fill the daily vacancies created by these members on light duty, an additional cost savings not reflected in this total.



\$105,770+ SAVINGS

DECREASED RISK OF CARDIOVASCULAR DISEASE BASED ON BODY FAT PERCENTAGE

The leading causes of cardiac diseases are: obesity, high blood pressure, diabetes, poor diet, and physical inactivity. All of these factors increase the likelihood of having a heart attack during extreme physical exertion². The average cardiac disease workers compensation claim in the fire service is at least \$52,885³. Firefighters experience high physical exertion on a daily basis on the job, so members being in the overweight category puts the department at a higher risk of cardiac illness and cardiac events.

Recruit Class (RC) 80 was the first recruit class at ACFD to participate in Trevor's training and injury reduction program. Using the O2X Readiness Assessment, O2X was able to track that two recruits improved from "high risk" for cardiovascular issues to "low risk" based on their body composition analysis. By decreasing body fat percentage and increasing lean muscle in these two recruits, we were able to reduce the risk of cardiovascular issues and subsequent financial liability of the department by at least **\$105,770**.

1. International Association of Firefighters. (2020, February 10). Back Injuries and the Fire Fighter. IAFF. Retrieved August 2, 2022, from <https://www.iaff.org/back-injuries/#:%7E:text=Rest%20for%20only%201%20or,and%20lead%20to%20further%20disability.>

2. Hammer, R. (2004, March 31). The Firefighter Fitness Pentagon: Part 4 – Body Composition. Retrieved December 8, 2020, from <https://www.firehouse.com/safety-health/article/10521132-the-firefighter-fitness-pentagon-part-4-body-composition>

3. Butry, David T, et al. "The Economics of Firefighter Injuries in the United States." 2019, p. 18., <https://doi.org/10.6028/nist.tn.2078>.



ACFD PROJECTED SAVINGS

Participation in training and injury reduction education will contribute to future department savings

\$324,663+
PROJECTED ANNUAL SAVINGS

As more members continue engagement with the Human Performance Program, the department will sustain fewer injuries, return to work faster, lower the risk of reinjury, and provide a better service to the citizens of Arlington County. In the most conservative of estimates, if the program is able to return 5 injured firefighters per year back to work 15% faster and avoid 5 preventable injuries, it will save the department more than \$324,663 in salary, overtime, and medical expenses annually.

O2X ON-SITE ENGAGEMENT

The data below include all sessions from April 2021 to July 31, 2022



364

Training Sessions Completed



234

O2X Readiness Assessments



358

O2X Mobile Accounts Created



73

Training Programs Created



670

Days of Programming Completed



216

Nutrition Consultations
Completed



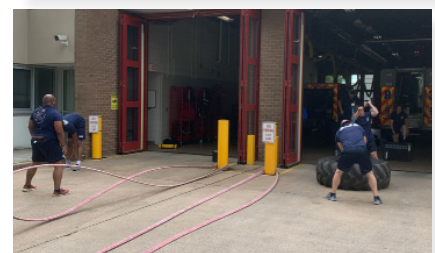
340

Strength & Conditioning
Consultations Completed

MILESTONES

The following are major accomplishments achieved with an O2X On-Site Specialist integrated within ACFD

- During the 2022 Duty Fit Assessments there were **zero recorded injuries**. Trevor's group and one-on-one training sessions incorporate movements specific to this assessment and the skills necessary to be safe in the different physical positions on test day.
- Since the program began, Trevor has had **zero injuries reported during his group or individual workouts**. The reduction and prevention of injuries through educating and training personnel on proper movement patterns is critical when it comes to department cost savings over time.
- O2X has been included as a resource for weight management and physical fitness in the county Standard Operating Procedures (SOPs).
- The On-Site Specialist was able to return a Deputy Chief's shoulder to almost full range of motion after a lengthy recovery process from a shoulder surgery. Prior to O2X's intervention, the Deputy Chief had severely limited ROM and extreme pain. Post treatment showed a dramatic increase in ROM and reduction of pain.
- O2X is working to provide recertification opportunities to ACFD PFTs. The workshops would provide PFTs with classroom knowledge and hands-on experience delivered by leading subject matter experts. O2X is working to ensure these courses will satisfy the continuing education units required by the IAFF.
- The state-of-the-art O2X App allows custom programs to be created and sent to each member by Trevor, allowing for more individualized and targeted training.



Integrated Specialist Program Impact

O2X Human Performance &
Frederick County Division of Fire & Rescue Services





FREDERICK COUNTY DIVISION OF FIRE & RESCUE SERVICES

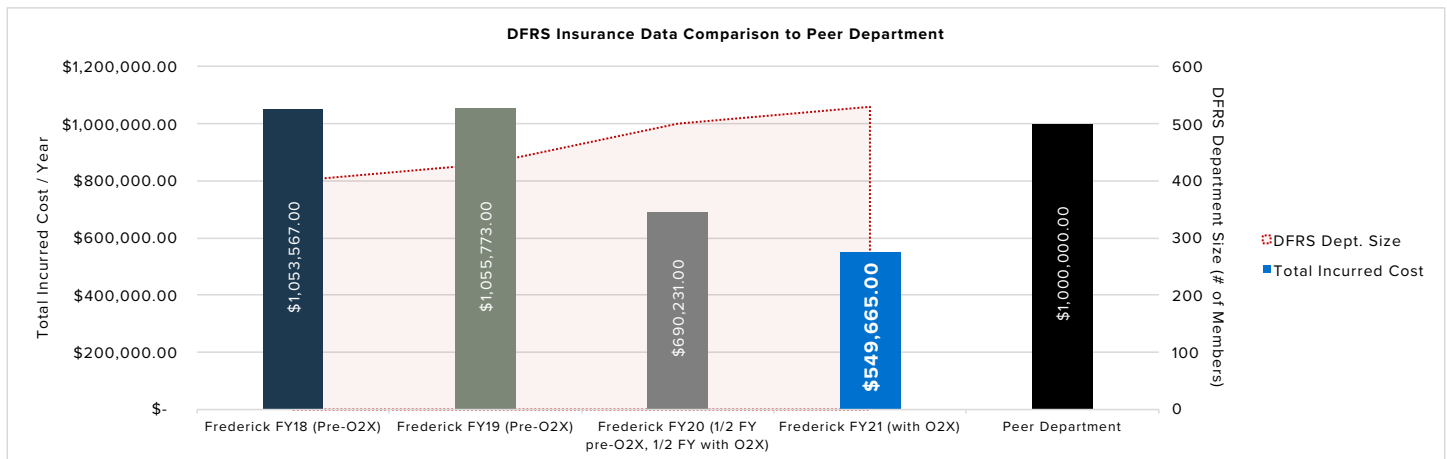


O2X PROGRAM AND ON-SITE SPECIALIST HAVE RESULTED IN MAJOR SAVINGS FOR DFRS

This report includes data and insurance claim trends from DFRS since the O2X partnership began in 2019. As a result of the impact of O2X and our On-Site Specialist, Kayla Schmit, we have observed injury decreases, elimination of cases of rhabdomyolysis, and fewer insurance claims with each Academy class, as well as decreases in insurance claims within the department.

	DFRS FY18	DFRS FY19	DFRS FY20	DFRS FY21	PEER DEPT.
Total Claims	101	130	169	161	200
Total Cost Incurred	\$1,053,567.00	\$1,055,773.00	\$690,231.00	\$549,665.00	\$1,000,000.00
Total # of Strains	39	46	76	49	78
Total % of Strains	39%	35%	45%	30%	45%
	FY18 (Pre-O2X)	FY19 (Pre-O2X)	FY20 (1/2 FY pre-O2X, 1/2 FY with O2X)	FY20 (With O2X)	Dept. of similar size & demographic

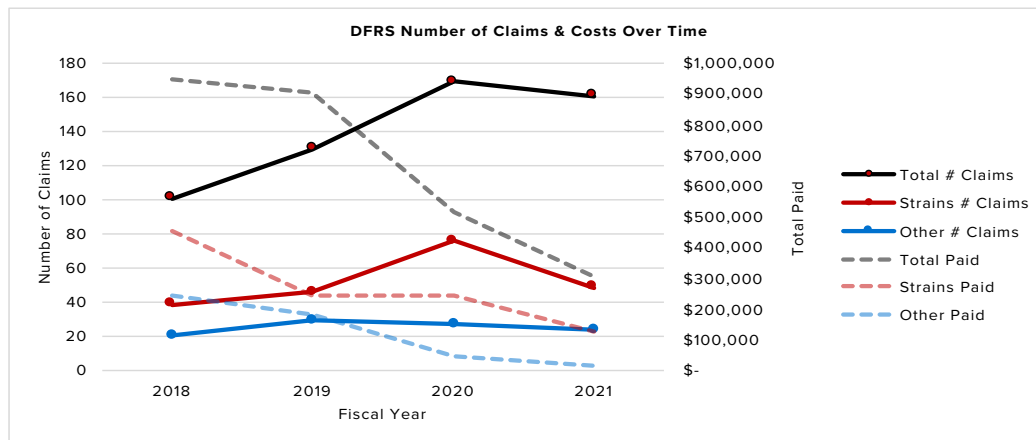
Table 1 displays the peer and historical comparison of number of claims and average incurred costs per year. Before O2X, Frederick's costs were similar to the peer department (~\$1M/year). With O2X, **the number claims and number of claims from preventable injuries (e.g. strains) are down on average**. Average incurred cost/year is significantly lower.



O2X and the On-Site Specialist have been able to continue reducing injury costs and claims even as the department grew from 429 members in 2019 to 529 members in 2022.

"O2X has been a great resource to the department. They have shown that they truly care about the people they work with."
- Frederick County Fire Firefighter -

Table 2 shows workers compensation claims and cost by fiscal year. O2X started midway through fiscal year 2020. Since then, **the number of preventable injury claims (strains and "other") and costs associated are declining on the department level**.



Prior to O2X, Frederick's costs were similar to a peer department in the mid-Atlantic region (~\$1M/year) of a similar size and demographic. The peer department does not have an O2X On-Site Specialist. As seen above, the **average incurred injury costs per year are significantly lower in FY21 after a full year with O2X and an On-Site Specialist** in comparison to pre-O2X and the peer department.



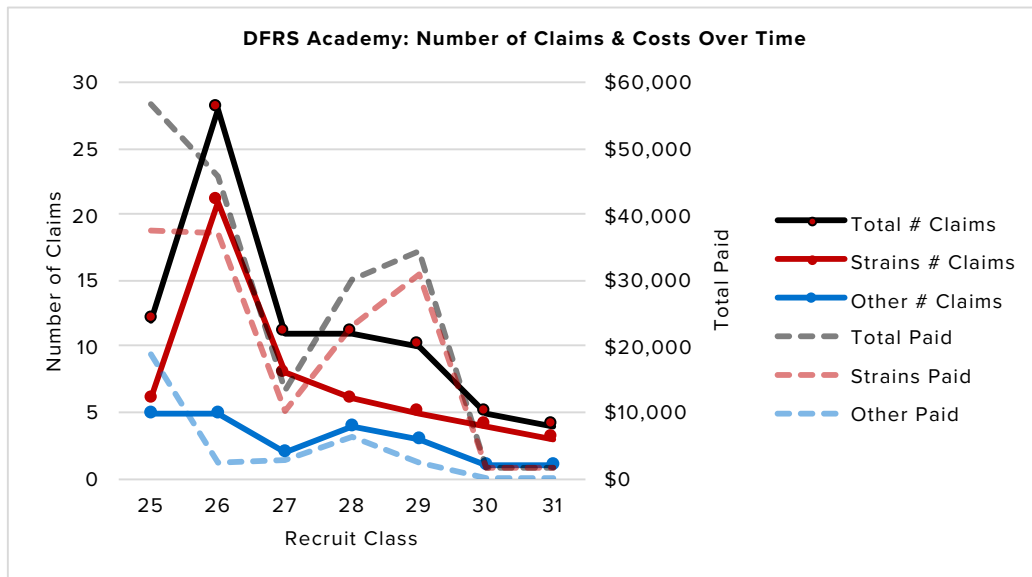
FREDERICK COUNTY DIVISION OF FIRE & RESCUE SERVICES



THE NUMBER OF PREVENTABLE INJURY CLAIMS (I.E., STRAINS AND “OTHER”) HAS DECLINED BEGINNING WITH RC27 RELATIVE TO PREVIOUS CLASSES

The partnership between DFRS and O2X started midway through fiscal year 2020. Since then, there has been strong evidence of its effectiveness, as the percentage of preventable injury claims (strains and “other”) and costs associated have declined on the department level. Similarly, the percentage of strain-related injuries has declined from RC27 (the first full class to use programming by our On-Site Specialist) and on.

Table 3 below displays the claims and cost by Recruit Class. **Beginning with RC27, O2X has helped see an overall reduction in number of preventable injury claims (strains and “other”) compared to RC25 and 26.**



“The On-Site Specialist has made such a positive impact on our academy experience. She is extremely knowledgeable on physical fitness and will do whatever is necessary to help us if we are sore/injured. I believe she is a very integral part of the PT program.”

- Frederick County Fire Recruit -

The data in this report summarize the cost savings and injury reduction, since the Frederick County Division of Fire and Rescue (DFRS) partnered with O2X Human Performance in September of 2019. This partnership was established with the primary goal of improving the overall health, wellness, and performance of DFRS. Key initiatives of the partnership that have had a remarkable impact include:



Group Training Sessions



Academy Performance Programs



Individual Custom Programming



Nutrition Consultations



Access to Virtual Resources

In addition to the quantifiable impact outlined in this report, DFRS has also benefited from a positive shift in culture from the O2X Program. From new recruits to veteran members of the department, firefighters are taking an active role in improving their health and wellbeing on and off the job – leaving them better equipped to handle the challenges of a career in the service of others.

