Evaluating Injury and Illness Trends in Federal and Postal Service Employees Using Workers' Compensation Claims Data 2007–2022

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Objective: The purpose of this study was to understand federal workplace injury/illness trends. **Methods:** Over 1.5 million federal and Postal Service employee workers' compensation (WC) claims from 2007 to 2022 were linked to employment data and analyzed. **Results:** From 2007 to 2019, falls, slips, trips represented the highest proportion of claims (30.7%), followed by overexertion and bodily reaction (24.4%), unclassified (16.4%), contact with objects and equipment (13.1%), violence and other injuries by persons or animals (8.8%), transportation incidents (4.0%), exposure to harmful substances or environments (2.5%), and fires and explosions (0.24%). From 2020 to 2022, COVID-19 drove a major shift to exposure to harmful substances or environments representing the highest proportion of claims (44.3%). **Conclusions:** Claims data represent a potentially rich data source that employing agencies can use to focus prevention and treatment of injury/illness.

Keywords: workers' compensation, federal employees, prevention, Postal Service, safety and health

LEARNING OUTCOMES

- Understand how workers' compensation claim counts, costs, and rates per 100 employees can be used for identifying prevention priorities in the federal workforce
- Describe how federal employee claim costs differ by levels of severity (medical-only, lost-time nonfatal, fatal) and injury/illness event/exposure, nature, and part of body
- Identify the top long-term leading events/exposures from 2007 to 2019 and how COVID-19 impacted the federal workforce from 2020 to 2022

Workers' compensation (WC) data are a potentially rich source of data for understanding trends and developing strategies for improving working conditions. The US Department of Labor Office of Workers' Compensation Programs (OWCP) and the US National Institute for Occupational Safety and Health developed a recent memorandum of understanding to work collaboratively on analyses to further inform federal worker safety and health efforts.

BACKGROUND

The OWCP provides programs for wage replacement benefits, medical treatment, vocational rehabilitation, and other benefits to certain workers or their dependents who experience work-related injury or occupational disease.[1] OWCP administers four major disability compensation programs. This includes the Federal Employees Program (workers' compensation coverage for Federal Nonpostal and Postal Service workers), the Energy Workers Program, the Longshore Program, and the Black Lung Program. For the Federal Employees Program, each employing agency pays OWCP back the medical and indemnity costs on a yearly basis.

OWCP publishes annual benefits paid for different programs as part of the National Academy of Social Insurance annual WC report. According to the latest data (2020 calendar year), OWCP represented 5.5% of all WC benefits paid in the US, based on "benefits paid under the Federal Employees' Compensation Act (FECA) and employer-financed benefits paid through the Federal Black Lung Disability Trust Fund. This amount of federal benefits paid also includes a portion of employer-financed benefits under the Longshore and Harbor Workers' Compensation Act."[2] For Federal Employees' Compensation Act employees alone, there were $2.59 M in total benefits paid in 2020 ($1.82 M indemnity, $779 K medical).[2]

In 2022, the federal workforce included over 2.2 M Nonpostal and 605 K Postal Service employees performing diverse work throughout the US and internationally.[3] Employing agencies include 15 cabinet departments (agriculture, commerce, defense, education, energy, health and human services, homeland security, housing and urban development, interior, justice, labor, state, transportation, treasury, veterans affairs) and a variety of independent agencies (such as the Postal Service and Environmental Protection Agency).

There have been few published peer-reviewed journal studies using federal workforce WC data. The Journal of Occupational and

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Data Availability: Aggregate data available in published tables.
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Environmental Medicine published a Federal Workers' Compensation Supplement in 2015 that included an overview of the OWCP system and two WC claims analyses for the Department of Defense (DOD). The first of the Journal of Occupational and Environmental Medicine publications analyzed DOD claim count, rates, and costs from 2000 to 2012 by cause, part of body and nature.[4] Denominators for rates were obtained from FedScope employment data. The top causes include material handling and slip/trip/falls. Other findings were that the rate of claims declined over time, although the costs per claim increased. The second study analyzed DOD claims from 2000 to 2008 by worker demographics and nature of injury.[5] Major findings were that risk and severity of injury differed by age group, as younger employees experienced higher rates of claims, but older employees had more costly claims.

In addition to peer-reviewed studies, the US Occupational Safety and Health Administration (OSHA) publishes yearly OSHA recordable logs for federal agencies. This includes case counts and rates by department and agency but does not include detailed information (such as cause) on each case or associated costs.[6]

In summary, there is limited published information on occupational safety and health issues in the federal workforce. The specific aims of this analysis were to use WC data to 1) understand the overall cost burden of occupational injuries/illnesses among all Federal Nonpostal and Postal Service employees and 2) to provide specific information on trends by cause, nature, and part of body that can be used by employing government agencies for benchmarking and driving prevention improvements.

METHODS

OWCP Claims Data

OWCP provided the authors with selected Federal Employees Program WC claims information from 2007 to 2022. The study population included all civilian federal employees and US Postal Service employees. These data exclude US government contractors, which as private employers are included in other state WC systems. These data also exclude military personnel and US Public Health Service members.

Data fields included year of claim, the federal department and agency where the claimant was employed, claimant occupation, adjudication status (whether the claim had been accepted or denied), OWCP codes for cause, nature of injury-illness, an indicator for whether the claim involved COVID-19, injury severity (first aid, medical-only [MO], lost-time [LT], fatal), medical paid costs, and indemnity compensation paid costs. OWCP defines LT claims as those with at least 4 days away from work.[7] The authors defined total claims to be all claim severity types combined.

Cost data included what had been paid to date as of 04/2023. Reserves for future anticipated costs were not included in the data provided to the authors. No inflation adjustments were applied to the cost data so that data presented here aligns with the cost data OWCP share routinely with the employing agencies. In many LT claims, full indemnity costs were not included, because according to OWCP policy, the federal agency of the injured employee directly pays temporary total indemnity up to 45 days following an injury.[7]

Claims Classification

OWCP claims severity, and injury nature, cause, and part of body codes are based on initial first report of injury/illness forms.[7] When OWCP provided more current data for those variables, the authors updated the information to improve accuracy. First, the authors classified any nonfatal claim with nonzero indemnity paid costs as LT. Second, the authors identified all COVID-19 claims by using the COVID-19 indicator field which OWCP indicated was updated regularly and used in prior reports. The nature, cause, and part of body codes for those claims were then changed if needed to COVID-19–related codes.

The authors developed crosswalks between the OWCP codes for cause and anatomical location to the Bureau of Labor Statistics (BLS) Occupational Injury and Illness (OIICS, version 2.01)[8] event/exposure and part of body (Supplemental Digital Content 1, http://links.lww.com/JOM/B756). This was done to allow comparisons of OWCP to other workplace injury data sources, including the BLS Survey of Occupational Injuries and Illnesses (SOII) data[9] and other WC analyses. The 1-digit event/exposure BLS OIICS categories includes seven, broad categories. COVID-19 claims were also coded according to BLS and OSHA guidelines,[10] using Part of Body code 6, Body systems, and Event code 5, Exposure to Harmful Substances or Environments.

Claim Rate Calculations

To compare federal departments that differ greatly by size, the authors calculated rates of claims per unit of employment. Because the OWCP WC data did not include employment counts, the authors utilized three main sources for federal employment counts by department and agency by year: US Office of Personnel Management Federal Workforce Data from FedScope[3]; the US BLS Quarterly Census of Employment and Wages (QCEW)[11]; and the US OSHA Federal Agency Programs, Federal Agency Injury and Illness Statistics by Year.[6] A summary of employment counts by source is provided in Supplemental Digital Content 2 (http://links.lww.com/JOM/B756).

Because FedScope is a vetted, publicly available federal employment data source and available in calendar years similar to the OWCP data, the authors used FedScope data wherever possible with the below exceptions.

- Department of State: The FedScope dataset for the Department of State excluded Foreign Service Personnel,[3] which are included in the OWCP WC data. Therefore, the authors used OSHA log Department of State employment data that included staff in foreign countries (OSHA, personal communication).
- Executive Office of the President, the Federal Judiciary, and the Tennessee Valley Authority (TVA): The FedScope dataset did not include these departments and the authors used OSHA log data for 2007–2019 instead. OSHA log data were unavailable for these departments in 2020–2022, and the authors used 2019 OSHA data for these years.
- US Postal Service: The FedScope dataset does not include the US Postal Service. The authors determined that the QCEW data appeared to be the best choice and used All Employees in Federal Government North American Industry Classification System (NAICS) 491 Postal Service for All establishment sizes in US with Federal Government as Owner, Series ID: ENUUS000101491.[11] OWCP data includes Postal Service staff that work in Puerto Rico and the Virgin Islands (OWCP, personal communication). QCEW also include employee counts for these territories. Compared to OSHA logs (8,306,903), total Postal Service employee counts 2007–2022 using QCEW (8,332,917) only differed slightly (0.3%), however, there were larger differences noted on a yearly basis (Supplemental Digital Content 2, http://links.lww.com/JOM/B756).
- Peace Corps: Because the OWCP program administers WC benefits for both Peace Corps employees and volunteers, the total denominator included the number of employees from the FedScope data and the number of volunteers from a published Peace Corps report.[12] Note that in 2020, the Peace Corps started with 6893 volunteers but then the volunteers were pulled back on 3/15/20 due to COVID-19, such that the Peace Corps report lists 0 volunteers for that year. Because volunteers worked for 20.5% of the year (75 of

366 days, because 2020 was a leap year), this equated to 1413 volunteers on an annualized basis for 2020.
- In summary, 30 of 32 federal departments in the OWCP data were matched to departments in the FedScope, QCEW, or OSHA datasets, with the exception of "independent" agencies and "nonchargeable" agencies. The denominator for these two unmatched groups of departments was assumed to be the remainder of covered employees from the FedScope dataset after all other departments were matched. Note that this unmatched denominator was similar to the unmatched denominator from the OSHA logs (Supplemental Digital Content 2, http://links.lww.com/JOM/B756).

In analyzing OWCP data, the authors separated results into two periods: 2007–2019 to evaluate long-term trends and 2020–2022 to evaluate the impacts of COVID-19. All calculations were performed with SAS.

Human Subjects

This activity was reviewed by the US Centers for Disease Prevention and Control, deemed not to be research, and was conducted consistent with applicable federal law and Centers for Disease Prevention and Control policy (see e.g., 45 C.F.R. part 46.102(l)(2), 21 C.F.R. part 56; 42 U.S.C. §241(d); 5 U.S.C. §552a; 44 U.S.C. §3501 et seq.).

RESULTS

A total of 1,867,456 OWCP claims were filed from 2007 to 2022. Of these, 1,546,819 (82.8%) with an accepted status code were used for further analyses. For these accepted claims, total indemnity compensation paid costs during this period were $10.38B and total medical paid costs were $8.47B, for a total paid cost of $18.86B. The majority of claims (72.1%) were nonzero cost, with paid costs for medical or indemnity. Most claims (71.8%) had paid medical costs, while 13.8% of total claims and 23.0% of LT claims had paid indemnity costs.

Injury-Illness Severity

Table 1 presents claim counts and claim rates per 100 employees per year by Injury-Illness Severity for MO, LT, fatal, and total claims.

Total and LT claim counts and rates per year declined steadily from 2007 to 2019. During the COVID-19 pandemic, rates generally continued down in 2020 but then increased substantially in 2021 and 2022. The percentage of claims that are LT has been increasing over time, ranging from 47.2% of claims in 2008 to 60.5% in 2019. COVID-19 further increased the number of LT claims, raising their share of all claims to 87.2% in 2022.

Table 2 presents paid costs by Injury Severity for MO, LT, fatal, and total claims per year.

From 2007 to 2019, LT claims represented 54.3% of total claims, but 89.2% of total medical paid cost and 98.7% of total indemnity paid cost. The median, medical paid cost among nonzero-cost claims was highest for LT claims at $1462 compared to $468 for MO claims. The median, indemnity paid cost among nonzero-cost claims was highest for fatal injury claims at $196,467 compared to $13,899 for LT claims. Indemnity payments represented 55.5% of total paid cost during 2007–2019.

From 2020 to 2022, LT claims represented 81.7% of total claims, but 89.5% of total medical paid cost and 98.1% of total indemnity paid cost. The nonzero median claim cost again differed by severity. Indemnity payments represented 49.8% of total paid cost.

TABLE 1. Accepted Claim Counts and Rates by Injury/Illness Severity, 2007–2022

Injury/Illness Severity	Measure	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2007–2019	2020–2022
MO	Claim count	54,648	55,847	52,636	50,667	44,468	38,937	39,063	37,409	35,976	33,978	32,146	31,187	28,695	17,668	17,179	16,495	535,657	51,342
	% claim count	49.05%	50.09%	48.93%	47.62%	44.60%	41.52%	43.20%	41.20%	40.75%	39.42%	38.47%	38.18%	37.48%	24.55%	18.53%	10.69%	43.63%	16.10%
	Claim rate per 100 employees	2.02	2.02	1.86	1.78	1.57	1.39	1.42	1.38	1.32	1.22	1.14	1.11	1.01	0.61	0.59	0.57	1.48	0.59
LT	Claim count	53,845	52,619	52,441	53,457	53,246	53,241	49,697	51,819	50,877	50,655	49,934	49,080	46,293	52,853	73,383	134,477	667,204	260,713
	% claim count	48.33%	47.20%	48.75%	50.24%	53.40%	56.77%	54.97%	57.07%	57.63%	58.77%	59.76%	60.09%	60.47%	73.45%	79.14%	87.16%	54.34%	81.74%
	Claim rate per 100 employees	1.99	1.90	1.85	1.88	1.88	1.90	1.81	1.91	1.86	1.82	1.77	1.74	1.63	1.84	2.53	4.67	1.84	3.01
Fatal	Claim count	50	49	58	53	45	34	46	32	38	43	29	33	37	97	139	69	547	305
	% claim count	0.04%	0.04%	0.05%	0.05%	0.05%	0.04%	0.05%	0.04%	0.04%	0.05%	0.03%	0.04%	0.05%	0.13%	0.15%	0.04%	0.04%	0.10%
	Claim rate per 100 employees	0.002	0.002	0.002	0.002	0.002	0.001	0.002	0.001	0.001	0.002	0.001	0.001	0.001	0.003	0.005	0.002	0.002	0.004
Total (all claim types)*	Claim count	111,409	111,486	107,576	106,397	99,715	93,790	90,414	90,794	88,289	86,197	83,554	81,675	76,554	71,956	92,722	154,291	1,227,850	318,969
	% claim count	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Claim rate per 100 employees	4.12	4.03	3.81	3.75	3.51	3.35	3.29	3.34	3.23	3.10	2.96	2.90	2.69	2.50	3.20	5.35	3.39	3.69

*1.9% of claims in 2007–2022 were first aid claims, not included in MO, LT, or fatal claims above.
LT, lost-time; MO, medical-only.

TABLE 2. Claim Costs by Injury/Illness Severity, 2007–2022

Injury/Illness Severity	Measure	2007–2019	Mean Cost of Nonzero Cost Claims 2007–2019	Median Cost of Nonzero Cost Claims 2007–2019	2020–2022	Mean Cost of Nonzero Cost Claims 2020–2022	Median Cost of Nonzero Cost Claims 2020–2022
MO	Medical paid cost	$823,102,859	$2,091	$468	$65,689,109	$2,102	$569
	% of total medical paid cost for all claims	10.56%			9.67%		
LT	Medical paid cost	$6,948,781,979	$12,441	$1,462	$607,970,066	$5,525	$1,079
	Indemnity paid cost	$9,591,239,273	$52,056	$13,899	$660,474,731	$22,916	$10,675
	% of total medical paid cost for all claims	89.17%			89.46%		
	% of total indemnity paid cost for all claims	98.73%			98.12%		
Fatal	Medical paid cost	$1,455,880	$9,904	$1,445	$901,719	$19,603	$2,006
	Indemnity paid cost	$123,456,784	$279,314	$196,467	$12,688,818	$60,423	$54,401
	% of total medical paid cost for all claims	0.02%			0.13%		
	% of total indemnity paid cost for all claims	1.27%			1.88%		
Total (all claim types)*	Medical paid cost	$7,792,378,679	$8,066	$816	$679,602,359	$4,711	$895
	Indemnity paid cost	$9,714,696,057	$52,600	$13,955	$673,163,548	$23,188	$10,772
	Indemnity as a % of total paid cost	55.49%			49.76%		

Note: The indemnity paid costs in this analysis did not include complete costs since federal agencies pay up to 45 days for temporary total indemnity following an injury, and these costs were not included. Data also only include what has been paid to date as of 4/23 and reserves for future costs are also not included.

*Including first aid cases not shown. Percent of claims with nonzero cost is 72.1%.

LT, lost-time; MO, medical-only.

Department

Table 3 presents LT, fatal, and total claim counts and rates by department by descending order of total claim count, for two time periods, 2007–2019 and 2020–2022.

In both 2007–2019 and 2020–2022, LT, fatal, and total claim counts were concentrated in a few large departments with the most employees. However, the set of departments with the highest counts differed somewhat between the two time periods.

From 2007 to 2019, the US Postal Service had by far the most total and LT claims (44%), followed by the Departments of Homeland Security, Veterans Affairs and the Army. The notable relative rise in claim counts in Veterans Affairs, Homeland Security, and Justice in 2020–2022 was due in part to these departments having a relatively greater number of COVID-19 claims.

In both 2007–2019 and 2020–2022, departments with the most claims also tended to have some of the highest rates, but some smaller departments (such as Corporation for National & Community Service [AmeriCorps] and the Government Publishing Office) also had relatively high rates.

Occupation

Table 4 presents total claim counts by occupation and main departments, 2007–2022.

Occupation codes were available for 1,297,843 or 83.9% of accepted claims. The occupations with the most claims were related to the Postal Service, including postal collection and delivery, distribution, and rural carriers. Other top occupations were associated with the other five high frequency departments—homeland security (border patrol agent, compliance inspector, and support), Veteran Affairs (nurse, nursing assistant), agriculture and the interior (forestry technician), and justice (criminal investigator, correctional officer).

Event/Exposure

Tables 5 and 6 present claim counts, rates, and costs data by BLS Event/Exposure for total claims and LT claims for two time periods, 2007–2019 and 2020–2022.

From 2007 to 2019, falls, slips, trips represented the highest proportion of total claims (30.7%) and LT clams (33.8%), followed by overexertion and bodily reaction (24.4% total claims; 25.3% LT). Overexertion and bodily reaction represented the highest proportion of total paid costs (29.1%). Transportation incidents had the highest median medical paid cost among nonzero cost claims while fires and explosions had the highest median indemnity compensation paid among nonzero cost claims. From 2020 to 2022, exposure to harmful substances or environments (mostly due to COVID-19) represented the highest proportion of total claims (44.3%).

Figures 1A and B present total and LT claim rates data by BLS event/exposure by year for 2007–2022.

Counts and rates for total claims for most events/exposures declined steadily from 2007 to 2019. Unclassified claims declined most from 2007 to 2019, followed by overexertion and bodily reaction, falls, slips, trips, and contact with objects and equipment. The relative shares of total claims by event/exposure remained fairly similar year to year. The decline in unclassified claims resulted in more claims assigned to other categories and this could explain some variation over time. For example, from 2012 to 2014, the rates of falls, slips, trips briefly increased as unclassified decreased substantially. After that period, the rates of falls, slips, trips continued to decline once again.

Counts and rates for LT claims for many events/exposures also declined from 2007 to 2019, but to a lesser degree. The relative shares of LT claims by event/exposure also remained similar, although there again was some variation year to year. From 2020 to 2022, COVID-19 drove a major shift to exposure to harmful substances or environments representing the highest proportion of total claims (44.3%), LT claims (52.1%), and fatal claims (66.6%). Falls, slips, trips still remained the next highest proportion of claims since most of these injuries occur in departments (such as the Postal Service) that largely required in-person work rather than telework during the pandemic.

TABLE 3. Claim Counts and Rates by Department, 2007–2022

	2007–2019													2020–2022											
Department	Employee Count 2007–2019	Total Claim Count 2007–2019	Rank Total Claim Count	Total Claim Rate	Rank Total Claim Rate	Lost-Time Count 2007–2019	Rank Lost-Time Count	Lost-Time Rate	Rank Lost-Time Rate	Fatal Count 2007–2019	Rank Fatal Count	Fatal Rate	Rank Fatal Rate	Employee Count 2020–2022	Total Claim Count 2020–2022	Rank Total Claim Count	Total Claim Rate	Rank Total Claim Rate	Lost-Time Count 2020–2022	Rank Lost-Time Count	Lost-Time Rate	Rank Lost-Time Rate	Fatal Count 2020–2022	Rank Fatal Count	Fatal Rate	Rank Fatal Rate
Postal Service	8,369,971	534,270	1	6.38	2	291,731	1	3.49	2	128	1	0.002	9	1,819,388	137,608	1	7.56	1	116,454	1	6.40	1	88	2	0.005	4
Homeland Security	2,484,178	133,837	2	5.39	4	67,776	2	2.73	3	38	6	0.002	8	635,669	44,895	3	7.06	2	33,587	3	5.28	2	43	3	0.007	2
Veterans Affairs	4,365,804	117,327	3	2.69	11	62,179	3	1.42	10	NR	NR	NR	NR	1,276,974	60,665	2	4.75	5	54,660	2	4.28	4	94	1	0.007	1
The Army	3,398,443	76,380	4	2.25	12	44,047	4	1.30	11	46	2	0.001	11	739,334	8,683	5	1.17	15	6,156	6	0.83	12	16	4	0.002	5
Justice	1,480,591	52,629	5	3.55	7	32,763	5	2.21	6	37	7	0.002	6	348,510	19,827	4	5.69	3	16,920	4	4.85	3	NR	NR	NR	NR
Agriculture	1,246,016	52,193	6	4.19	6	21,906	8	1.76	8	45	3	0.004	5	264,983	7,867	6	2.97	8	4,842	7	1.83	6	14	5	0.005	3
The Interior	912,235	49,718	7	5.45	3	17,935	9	1.97	7	45	3	0.005	3	190,608	5,404	9	2.84	9	2,329	11	1.22	8	NR	NR	NR	NR
The Navy	2,566,778	49,082	8	1.91	13	31,535	6	1.23	12	40	5	0.002	7	664,368	6,518	8	0.98	16	4,746	8	0.71	15	NR	NR	NR	NR
The Air Force	2,170,141	37,596	9	1.73	15	26,454	7	1.22	13	13	12	0.001	12	517,164	4,221	11	0.82	17	3,714	10	0.72	14	NR	NR	NR	NR
Defense Agencies	1,386,628	23,534	10	1.70	16	15,771	10	1.14	15	21	11	0.002	10	356,077	4,632	10	1.30	13	3,898	9	1.09	11	NR	NR	NR	NR
Transportation	722,524	12,546	11	1.74	14	6,025	12	0.83	16	NR	NR	NR	NR	161,303	7,121	7	4.41	6	6,366	5	3.95	5	NR	NR	NR	NR
Treasury	1,323,863	11,775	12	0.89	22	8,066	11	0.61	20	NR	NR	NR	NR	288,928	898	15	0.31	22	715	14	0.25	20	NR	NR	NR	NR
Commerce	602,808	10,008	13	1.66	17	4,764	15	0.79	17	NR	NR	NR	NR	150,112	2,417	12	1.61	12	1,739	12	1.16	9	NR	NR	NR	NR
Health & Human Services	1,075,978	9,844	14	0.91	21	5,752	13	0.53	21	NR	NR	NR	NR	258,017	1,280	14	0.50	19	1,044	13	0.40	17	NR	NR	NR	NR
Social Security Administration	837,561	7,821	15	0.93	20	5,623	14	0.67	18	NR	NR	NR	NR	179,827	384	16	0.21	24	342	15	0.19	22	NR	NR	NR	NR
Labor	203,769	5,988	16	2.94	10	3,331	17	1.63	9	22	10	0.011	2	42,425	2,325	13	5.48	4	320	16	0.75	13	NR	NR	NR	NR
Peace Corps	Employees: 12,290; volunteers: 91,614	4,835	17	4.65	5	3,640	16	3.50	1	25	8	0.024	1	Employees: 2,832; volunteers: 2,115	160	21	3.23	7	NR	NR	NR	NR	NR	NR	NR	NR
Federal Judiciary	432,264	3,659	18	0.85	23	1,919	19	0.44	24	NR	NR	NR	NR	90,837	369	17	0.41	21	222	18	0.24	21	NR	NR	NR	NR
State	618,134	3,510	19	0.57	26	2,000	18	0.32	27	23	9	0.004	4	231,729	338	18	0.15	25	248	17	0.11	24	NR	NR	NR	NR
Energy	199,623	2,817	20	1.41	18	1,229	20	0.62	19	NR	NR	NR	NR	44,070	312	20	0.71	18	184	19	0.42	16	NR	NR	NR	NR
Smithsonian Institution	62,871	1,939	21	3.08	8	765	21	1.22	14	NR	NR	NR	NR	13,682	318	19	2.32	10	39	22	0.29	18	NR	NR	NR	NR
Tennessee Valley Authority	152,316	1,650	22	1.08	19	694	23	0.46	22	NR	NR	NR	NR	29,916	123	22	0.41	20	85	20	0.28	19	NR	NR	NR	NR
Environmental Protection Agency	218,944	1,173	23	0.54	27	686	24	0.31	28	NR	NR	NR	NR	44,626	58	23	0.13	26	32	24	0.07	25	NR	NR	NR	NR
General Services Administration	154,364	1,044	24	0.68	25	695	22	0.45	23	NR	NR	NR	NR	35,195	32	27	0.09	27	18	26	0.05	26	NR	NR	NR	NR
Housing & Urban Development	114,050	828	25	0.73	24	479	26	0.42	25	NR	NR	NR	NR	23,821	51	25	0.21	23	35	23	0.15	23	NR	NR	NR	NR
National Aeronautics Space Administration	232,760	807	26	0.35	30	387	27	0.17	30	NR	NR	NR	NR	53,423	36	26	0.07	28	18	26	0.03	27	NR	NR	NR	NR

Government Publishing Office	25,559	759	27	2.97	9	642	25	2.51	4	NR	NR	NR	NR	4,759	58	23	1.22	14	55	21	1.16	10	NR	NR	NR	NR	NR	NR
Corporation for National & Community Service	7,847	581	28	7.40	1	188	29	2.40	5	NR	NR	NR	NR	1,769	30	28	1.70	11	24	25	1.36	7	NR	NR	NR	NR	NR	NR
Education	54,927	285	29	0.52	28	197	28	0.36	26	NR	NR	NR	NR	12,277	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Executive Office of the President	22,848	101	30	0.44	29	69	30	0.30	29	NR	NR	NR	NR	3,750	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
All matched departments	Employees: 35,456,082; peace corps volunteers: 91,614; total: 35,547,696	1,208,536		3.40		659,248		1.85		527		0.001		Employees: 8,486,372; peace corps volunteers: 2,115; total: 8,488,487	316,646		3.73		259,039		3.05		298			0.004		
Nonmatched departments (not able to be matched to FedScope, QCEW, or OSHA data); includes some unnamed independent agencies and nonchargeable agencies.	711,829	19,314		2.71		7,956		1.12		20		0.003		165,513	2,323		1.40		1,674		1.01		7			0.004		
All matched and nonmatched	Employee and peace corps volunteer count: 36,259,525	1,227,850		3.39		667,204		2		547		0.002		Employee and peace corps volunteer count: 8,654,000	318,969		3.69		260,713		3.01		305			0.004		

Case rates are per 100 employees.
NR means "not reported" and indicates 11 or fewer case counts.

TABLE 4. Total Claim Counts by Occupation, 2007–2022

Occupation	Claim Count	Claim Count %	Main Departments
Postal collection and delivery	253,819	19.56%	Postal Service
Postal distribution	74,063	5.71%	Postal Service
Rural carriers	66,888	5.15%	Postal Service
Border patrol agent	61,066	4.71%	Homeland Security
Nurse	60,215	4.64%	Veteran Affairs and others
Unknown/missing occupation	52,924	4.08%	Multiple
Compliance inspector and support	42,412	3.27%	Homeland Security and others
Criminal investigating	24,898	1.92%	Justice and Homeland Security
Forestry technician	24,640	1.90%	Agriculture and the Interior
Postal window and related services	23,652	1.82%	Postal Service
Correctional officer	23,547	1.81%	Justice
Customs warehouse officer	19,267	1.48%	Homeland Security
Nursing assistant	16,629	1.28%	Veteran Affairs and others
Maintenance mechanic	15,986	1.23%	Multiple
Clerk	15,409	1.19%	Multiple
Police	14,282	1.10%	Homeland Security and others
Fire protection and prevention	13,251	1.02%	Army, Navy, Air Force, and others
Customs and border protection	12,624	0.97%	Homeland Security
Postal support employee	10,893	0.84%	Postal Service
General inspection and investigation	10,876	0.84%	Homeland Security and others
Custodial worker	7,227	0.56%	Multiple
Motor vehicle operating	6,879	0.53%	Postal Service and others
Air traffic control	6,792	0.52%	Transportation
Laboring	6,445	0.50%	Postal Service and others
Administration and programming	5,867	0.45%	Multiple
Medical clerk	5,785	0.45%	Veteran Affairs and others
Food service working	5,192	0.40%	Veteran Affairs and others
Park management	5,070	0.39%	Interior
Aircraft mechanic	4,956	0.38%	Air Force
Heavy mobile equipment mechanic	4,954	0.38%	Army, Navy, Air Force, and others
Biological technician	4,689	0.36%	Agriculture and Interior
Transportation/mobile equipment	4,463	0.34%	Army, Navy, Air Force, and others
Health technician	4,241	0.33%	Veteran Affairs and others
Apprenticeship and training	4,169	0.32%	Department of Labor and others

For each department, Table 7 presents total claim rates and proportions by event/exposure for 2007–2019, sorted by descending order of total claim rates. The departments with higher total injury rates tended to have higher rates of all events/exposures. Slip, trip, and falls were the leading cause of injury in almost all departments, followed by overexertion and bodily reaction or contact with objects and equipment. Claim rates varied considerably by department and event/exposure.

Cause

Tables 8 and 9 present claim counts, rates, and costs data by OWCP Cause of Injury for total claims and LT claims for two time periods, 2007–2019 and 2020–2022.

From 2007 to 2019, the top 13 cause codes, each associated with at least 2% of claims, represented 74.6% of total claims, 74.5% of LT claims, and 80.0% of total paid costs. Most top codes were types of overexertion (handling manual equipment and handling packaged material) and slip, trip, and falls. Other top codes were associated with contact with objects and equipment (striking against material equipment), violence, and other injuries by persons or animals (dog bite). Transportation incidents (vehicle accident, driver) had the highest median medical cost among nonzero cost claims, while handling manual equipment had the highest median indemnity cost among nonzero cost claims. From 2007 to 2019, the vast majority (97.6%) of fatal claims did not include a cause code.

From 2020 to 2022, the top 11 cause codes, each associated with at least 2% of claims, represented 76.2% of total claims, 81.0% of LT claims, and 68.3% of total paid costs. From 2020 to 2022, exposure to COVID-19 by far represented the most claims of all claim types but had a relatively low claim cost.

Nature

Tables 10 and 11 present claim counts, rates, and costs data by OWCP nature for total claims and LT claims for two time periods, 2007–2019 and 2020–2022.

From 2007 to 2019, the top 10 nature codes, each associated with at least 2% of claims, represented 82.8% of total claims, 81.4% of LT claims, and 67.0% of total paid costs. Most top codes were soft-tissue musculoskeletal in nature, including upper extremity, and back sprains/strains. These natures of injuries were associated with multiple leading causes of injury, especially overexertion and slips/trips/falls. Soft-tissue musculoskeletal claims also tended to have some of the highest median indemnity costs among nonzero claims. The remainder of top nature codes were associated with traumatic injuries, including contusions, puncture wounds, lacerations, and fractures. These types of natures are also associated with multiple causes of injury, especially slips/trips/falls, contact with objects and equipment, violence and animal related injuries, and transportation incidents. Fractures had the highest median medical cost among nonzero cost claims. From 2007 to 2019, most of the top nature codes for fatal claims were death, sudden violent, 395 (72.2% of fatal claims); followed by traumatic injury—unclassified (except disease, illness), 46 (8.4%); tumors, cancer and related conditions, 16 (2.9%); asbestosis, 14 (2.6%); cardiovascular conditions, 11 (2.0%); and myocardial infarction 9 (1.6%). From 2020 to 2022, COVID-19 by far represented the most total claims (42.8%) and fatal claims (66.6%), but only 7.2% of total paid costs.

Part of Body

Tables 12 and 13 present claim counts, rates, and costs data by BLS part of body for total claims and LT claims for two time periods, 2007–2019 and 2020–2022.

From 2007 to 2019, the top 13 part of body codes, each associated with at least 2% of claims, represented 85.7% of total claims, 86.2% of LT claims and 84.3% of total paid costs. The back, including spine and spinal cord, had the highest total number of claims by part of body and was associated most with sprains/strains due to overexertion and slips/trips/falls. Almost all other top codes were upper extremity (led by hands and shoulders) associated most with sprains/strains due to overexertion and contact with objects or lower extremity (led by legs and ankles) associated most with slips, trips, and falls. Shoulders had both the highest median medical cost among nonzero cost claims, and the highest median indemnity cost among nonzero cost claims. From 2007 to 2019, the vast majority (97.6%) of fatal claims

TABLE 5. Claim Counts and Costs by BLS Event/Exposure Code, 2007–2019

BLS Event/ Exposure 1-Digit Code Description	Total Claim Count	%	Total Claim Rate	LT Claim Count	%	LT Claim Rate	Medical Paid Cost	%	Indemnity Paid Cost	%	Total Paid Cost	%	Ratio Paid Cost % to Count %	Mean Medical Paid Cost of Nonzero Cost Claims	Median Medical Paid Cost of Nonzero Cost Claims	Mean Indemnity Paid Cost of Nonzero Cost Claims	Median Indemnity Paid Cost of Nonzero Cost Claims
All	1,227,850	100.00%	3.39	667,204	100.00%	1.84	$7,792,379,897	100.00%	$9,714,696,057	100.00%	$17,507,075,953	100.00%	NA	$8,066	$816	$52,600	$13,955
Falls, slips, trips	376,514	30.66%	1.04	225,238	33.76%	0.62	$2,209,506,520	28.35%	$2,566,633,788	26.42%	$4,776,140,308	27.28%	0.9	$7,406	$1,026	$43,795	$11,359
Overexertion and bodily reaction	299,108	24.36%	0.82	168,682	25.28%	0.47	$2,295,750,963	29.46%	$2,801,559,292	28.84%	$5,097,310,255	29.12%	1.2	$9,657	$1,097	$50,157	$14,836
Unclassified	200,782	16.35%	0.55	106,840	16.01%	0.29	$1,792,701,043	23.01%	$2,591,078,874	26.67%	$4,383,779,917	25.04%	1.5	$11,905	$1,167	$66,300	$18,713
Contact with objects and equipment	160,317	13.06%	0.44	77,515	11.62%	0.21	$550,316,799	7.06%	$617,565,903	6.36%	$1,167,882,702	6.67%	0.5	$4,414	$511	$42,427	$12,012
Violence and other injuries by persons or animals	107,741	8.77%	0.30	39,631	5.94%	0.11	$243,614,180	3.13%	$325,171,635	3.35%	$568,785,816	3.25%	0.4	$2,782	$342	$63,485	$11,651
Transportation incidents	49,531	4.03%	0.14	33,730	5.06%	0.09	$629,617,058	8.08%	$711,854,805	7.33%	$1,341,471,863	7.66%	1.9	$14,194	$1,543	$69,206	$14,763
Exposure to harmful substances or environments	$54,375,720	0.70%					$81,600,537	0.84%	$135,976,257	0.78%	0.3	$2,629	$315	$85,715	$12,084		
Fires and explosions	2,941	0.24%	0.01	1,388	0.21%	0.00	$16,428,034	0.21%	$19,231,223	0.20%	$35,659,257	0.20%	0.9	$7,599	$514	$83,614	$34,112

LT, lost-time.

TABLE 6. Claim Counts and Costs by BLS Event/Exposure Code, 2020–2022

BLS Event/ Exposure 1-Digit Code Description	Total Claim Count	%	Total Claim Rate	LT Claim Count	%	LT Claim Rate	Medical Paid Cost	%	Indemnity Paid Cost	%	Total Paid Cost	%	Ratio Paid Cost % to Count %	Mean Medical Paid Cost of Nonzero Cost Claims	Median Medical Paid Cost of Nonzero Cost Claims	Mean Indemnity Paid Cost of Nonzero Cost Claims	Median Indemnity Paid Cost of Nonzero Cost Claims
All	318,969	100.00%	3.69	260,713	100.00%	3.01	$679,602,359	100.00%	$673,163,548	100.00%	$1,352,765,907	100.00%	NA	$4,711	$895	$23,188	$10,772
Exposure to harmful substances or environments	141,358	44.32%	1.63	133,367	51.15%	1.54	$40,039,147	5.89%	$63,995,094	9.51%	$104,034,241	7.69%	0.2	$3,047	$125	$23,719	$3,352
Falls, slips, trips	58,151	18.23%	0.67	44,060	16.90%	0.51	$215,695,045	31.74%	$198,165,259	29.44%	$413,860,304	30.59%	1.7	$4,876	$1,306	$20,396	$9,954
Overexertion and bodily reaction	52,085	16.33%	0.60	35,944	13.79%	0.42	$177,923,476	26.18%	$164,503,826	24.44%	$342,427,303	25.31%	1.6	$4,671	$1,047	$23,040	$12,165
Contact with objects and equipment	20,462	6.42%	0.24	13,908	5.33%	0.16	$54,446,757	8.01%	$51,770,340	7.69%	$106,217,097	7.85%	1.2	$3,760	$715	$22,857	$10,749
Unclassified	19,420	6.09%	0.22	14,185	5.44%	0.16	$96,051,527	14.13%	$106,958,784	15.89%	$203,010,311	15.01%	2.5	$6,991	$1,530	$27,348	$14,214
Violence and other injuries by persons or animals	18,240	5.72%	0.21	11,735	4.50%	0.14	$29,890,613	4.40%	$28,866,356	4.29%	$58,756,969	4.34%	0.8	$2,345	$415	$24,863	$11,096
Transportation incidents	8,707	2.73%	0.10	7,184	2.76%	0.08	$63,628,233	9.36%	$57,234,516	8.50%	$120,862,749	8.93%	3.3	$8,517	$1,974	$27,190	$13,348
Fires and explosions	542	0.17%	0.01	326	0.13%	0.00	$1,913,767	0.28%	$1,669,375	0.25%	$3,583,141	0.26%	1.6	$5,531	$622	$47,696	$28,996

Case rates are per 100 employees.

Note: The indemnity paid costs in this analysis did not include complete costs since federal agencies pay up to 45 days for temporary total indemnity following an injury, and these costs were not included. Data also only include what has been paid to date as of 4/23 and reserves for future costs are also not included.

LT, lost-time.

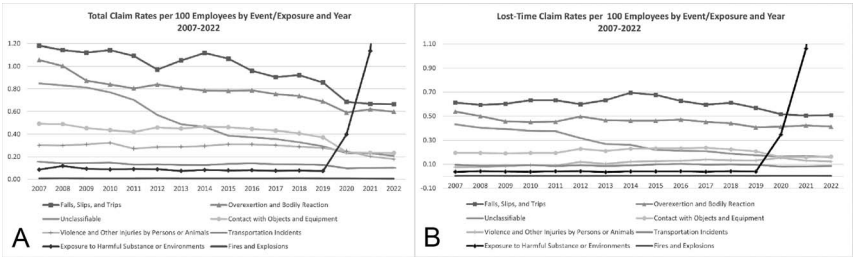

FIGURE 1. (A) Total claim rates per 100 employees by event/exposure and year 2007–2022. Note: The exposure to harmful substance or environments value in 2022 was 3.36. (B) Lost-time claim rates per 100 employees by event/exposure and year 2007–2022. Note: The exposure to harmful substance or environments value in 2022 was 3.21.

did not include a part of body code. From 2020 to 2022, body systems (COVID-19) represented 42.8% of total claims and 66.6% of all fatal claims.

DISCUSSION

General Trends

This analysis provides insight into the burden of workplace injury/illness on federal workers. From 2007 to 2022, OWCP had over 1.5 M accepted WC claims with a current paid cost of almost $19B. This total is an underestimate of actual costs. Only 23% of LT claims had paid indemnity cost. This is likely due to the OWCP policy that the employing federal agency of the injured employee pays temporary total indemnity up to 45 days following an injury while OWCP pays additional costs after 45 days. The total temporary disability payments by the agency in the first 45 days are not included in the current cost figures. In addition, both the medical and indemnity costs do not include reserves such that the total costs are anticipated to be vastly higher.

OWCP total claim counts and rates per year declined steadily and substantially from 2007 to 2019. This decline is consistent with data from most US state WC systems[13–15] and the BLS SOII.[9] This consistent downward trend across the US has been suggested to be due to several factors including improved safety and reduced hazards,[16] as well as underreporting.[17] Injuries are more common than illnesses in WC systems and the BLS SOII. Underreporting is higher for illness claims due to several factors.[17–20] This includes a longer time lag between exposure and illness that may result in the claim never being filed. Proving work relatedness of illnesses is also more difficult and typically requires submission of more detailed medical evidence.

However, the counts and rates of OWCP claims with LT declined to a much lesser degree from 2007 to 2019, which is again consistent with other US state WC systems.[15,21,22] This difference between the claim types in rate trends resulted in an increase in the proportion of OWCP claims that are LT claims ranging from 47.2% of claims in 2008 to 60.5% in 2019. It is not clear what was driving this increase because LT claims do not represent the majority of claims in most US state WC systems[15,21] or the majority of cases in SOII,[9] although the proportions of LT claims/cases are rising.

Impact of COVID-19

COVID-19 clearly had a major impact on federal employees and OWCP claims. OWCP WC claim counts and rates increased substantially in 2021 and 2022. The increase in claim counts and rates were directly due to COVID-19.

From 2020 to 2022, COVID-19 claims represented 42.8% of total OWCP claims. This represents a much larger share of COVID-19 claims versus total claims compared to US state WC systems. For example, in 2020, most US states reported less than 5% of total WC claims were COVID-19 related.[23] CA had one of the highest proportions of COVID-19 claims of any US state but peaked at 17.5% in 2020 and then fell to 11.4% in 2021.[24] Several factors may explain the difference in COVID WC claim proportions in OWCP versus other systems. This includes difference in exposures, different compensability requirements, or higher COVID-19 claim acceptance rates in the federal WC system.

In particular, the American Rescue Plan Act of 2021 signed into law on March 11, 2021, made it easier to establish coverage for COVID under FECA. Specifically, to receive WC compensation under the American Rescue Plan Act, while employed in the federal service at any time during the period of January 27, 2020, to January 27, 2023, a person only had to be diagnosed with COVID-19 and have job duties that included any risk of exposure, including contact with patients, members of the public, or coworkers.[25] After January 27, 2023, the COVID-19 infection also had to be found by a physician to be causally related to established events or employment factors.[26]

The Department of Veterans Affairs experienced the most COVID-19 claims (46,425, 34.0%), followed by the US Postal Service (29.2%), and the Department of Homeland Security (16.2%). Their higher rates of COVID-19 claims are understandable given that these departments involve occupations with work tasks and exposures that were associated with COVID-19 work-related claims. This includes healthcare workers providing patient care, working in close proximity with others especially indoors, and working with the public at large. In addition, telework was not an option for many of these types of occupations.

Although 42.8% of total claims from 2020 to 2022 were due to COVID-19, these claims only represented 5.3% of medical paid costs and 9.0% of indemnity paid costs, although it is unclear how much indemnity was actually covered under continuation of pay. Understanding the impact of Long COVID (defined as those claims where symptoms last longer than 3 months[27]) is an area of current research in many WC systems.

Value of Computing Rates and Costs by Event/Exposure

Although the majority of OWCP claims came from a few large departments, safety challenges exist in many areas of the federal workforce. Linking employment data with the OWCP claims data allowed for the calculation of count and cost rates by department and event/exposure of injury. This augments OSHA data for federal agencies that just provide overall rates for total and LT cases. This is important for enabling employing agencies to benchmark and direct prevention priorities.

As an example, although the Corporation for National and Community Service (AmeriCorps) is a relatively small department, they had the highest rate of claims from 2007 to 2019. Calculating rates also helped confirm that prevention at the Postal Service should remain a priority not only because the Postal Service has the highest count of claims, but also it has the second highest claim rate.

TABLE 7. Total Claim Rates and Proportions by Event/Exposure and Department, 2007–2019

	Total Claim Rates per 100 Employees									Proportions of Total Claims							
Department	Violence and Other Injuries by Persons or Animals	Transportation Incidents	Fires and Explosions	Falls, Slips, Trips	Exposure to Harmful Substances or Environments	Contact With Objects and Equipment	Overexertion and Bodily Reaction	Unclassified	Total Rates	Falls, Slips, Trips	Overexertion and Bodily Reaction	Contact With Objects and Equipment	Violence and Other Injuries by Persons or Animals	Exposure to Harmful Substances or Environments	Transportation Incidents	Fires and Explosions	Unclassified
Corporation for National & Community Service	0.28	0.46	0.00	2.19	0.14	1.3	1.08	1.95	7.40	29.6%	14.6%	17.6%	3.8%	1.9%	6.2%	0.0%	26.4%
Postal Service	0.89	0.3	0.00	1.9	0.08	0.83	1.6	0.78	6.38	29.8%	25.1%	13.0%	13.9%	1.3%	4.7%	0.1%	12.3%
The Interior	0.53	0.16	0.06	1.61	0.38	0.79	1.22	0.70	5.45	29.5%	22.4%	14.5%	9.7%	7.0%	2.9%	1.1%	12.8%
Homeland Security	0.24	0.24	0.01	1.46	0.11	0.6	1.23	1.50	5.39	27.1%	22.8%	11.1%	4.5%	2.0%	4.5%	0.2%	27.8%
Peace Corps	0.19	0.11	0.00	0.41	0.07	0.05	0.19	3.62	4.65	8.9%	4.0%	1.0%	4.1%	1.6%	2.5%	0.1%	77.9%
Agriculture	0.35	0.13	0.05	1.2	0.44	0.51	0.78	0.73	4.19	28.6%	18.6%	12.2%	8.4%	10.5%	3.1%	1.2%	17.4%
Justice	0.16	0.16	0.02	0.99	0.08	0.42	0.85	0.87	3.55	27.9%	23.9%	11.8%	4.5%	2.3%	4.5%	0.6%	24.6%
Smithsonian Institution	0.21	0.06	0.00	0.92	0.13	0.5	1.05	0.21	3.08	29.8%	34.0%	16.2%	6.8%	4.2%	1.9%	0.1%	6.9%
Government Publishing Office	0.05	0.03	0.00	0.69	0.05	0.51	1.11	0.53	2.97	23.2%	37.4%	17.2%	1.7%	1.7%	1.0%	0.1%	17.8%
Labor	0.11	0.11	0.01	1.25	0.05	0.58	0.42	0.41	2.94	42.5%	14.3%	19.7%	3.7%	1.7%	3.7%	0.3%	13.9%
Veterans Affairs	0.08	0.04	0.00	0.87	0.05	0.28	0.67	0.70	2.69	32.4%	24.9%	10.4%	3.0%	1.9%	1.5%	0.1%	26.0%
The Army	0.07	0.06	0.01	0.73	0.08	0.45	0.61	0.24	2.25	32.5%	27.1%	20.0%	3.1%	3.6%	2.7%	0.4%	10.6%
The Navy	0.03	0.06	0.01	0.58	0.06	0.33	0.59	0.25	1.91	30.3%	30.9%	17.3%	1.6%	3.1%	3.1%	0.5%	13.2%
Transportation	0.04	0.19	0.01	0.72	0.1	0.24	0.42	0.02	1.74	41.5%	24.2%	13.8%	2.3%	5.8%	10.9%	0.6%	0.9%
The Air Force	0.03	0.12	0.01	0.56	0.05	0.26	0.49	0.21	1.73	32.3%	28.3%	15.0%	1.7%	2.9%	6.9%	0.6%	12.3%
Defense Agencies	0.05	0.04	0.00	0.64	0.04	0.2	0.51	0.22	1.70	37.7%	30.0%	11.8%	2.9%	2.4%	2.4%	0.2%	12.8%
Commerce	0.34	0.13	0.00	0.68	0.03	0.12	0.19	0.17	1.66	41.0%	11.4%	7.2%	20.5%	1.8%	7.8%	0.2%	10.3%
Energy	0.1	0.05	0.01	0.41	0.05	0.16	0.38	0.25	1.41	29.1%	26.9%	11.3%	7.1%	3.5%	3.5%	0.7%	17.8%
Tennessee Valley Authority	0.03	0.04	0.00	0.2	0.08	0.16	0.28	0.29	1.08	18.5%	25.8%	14.8%	2.8%	7.4%	3.7%	0.3%	27.1%
Social Security Administration	0.02	0.01	0.00	0.51	0.05	0.11	0.12	0.11	0.93	54.6%	12.9%	11.8%	2.1%	5.4%	1.1%	0.4%	12.2%
Health & Human Services	0.02	0.02	0.00	0.34	0.03	0.11	0.2	0.19	0.91	37.2%	21.9%	12.0%	2.2%	3.3%	2.2%	0.4%	21.3%
Treasury	0.02	0.04	0.00	0.36	0.01	0.08	0.18	0.20	0.89	40.5%	20.2%	9.0%	2.2%	1.1%	4.5%	0.4%	22.4%
Federal Judiciary	0.03	0.05	0.00	0.34	0.01	0.08	0.17	0.17	0.85	40.2%	20.1%	9.5%	3.5%	1.2%	5.9%	0.4%	19.7%
Housing & Urban Development	0.01	0.04	0.00	0.35	0.01	0.1	0.14	0.08	0.73	48.2%	19.3%	13.8%	1.4%	1.4%	5.5%	0.5%	10.5%
General Services Administration	0.01	0.03	0.00	0.29	0.01	0.09	0.14	0.11	0.68	42.9%	20.7%	13.3%	1.5%	1.5%	4.4%	0.5%	15.7%

State	0.02	0.03	0.00	0.2	0.01	0.08	0.09	0.14	0.57	35.2%	15.8%	14.1%	3.5%	1.8%	5.3%	0.6%	24.3%
Environmental Protection Agency	0.01	0.03	0.00	0.22	0.02	0.07	0.09	0.10	0.54	41.1%	16.8%	13.1%	1.9%	3.7%	5.6%	0.7%	17.9%
Education	0.01	0.02	0.00	0.22	0.01	0.07	0.08	0.11	0.52	42.4%	15.4%	13.5%	1.9%	1.9%	3.9%	0.7%	21.0%
Executive Office of the President	0.00	0.02	0.00	0.21	0.00	0.05	0.09	0.07	0.44	47.5%	20.4%	11.3%	0.8%	0.8%	4.5%	0.8%	16.3%
National Aeronautics Space Administration	0.00	0.02	0.00	0.15	0.01	0.05	0.06	0.06	0.35	43.3%	17.3%	14.4%	1.0%	2.9%	5.8%	1.0%	16.4%

Costs and claim rates varied considerably by department and event/exposure. These data can be utilized by the employing agencies to inform both primary prevention and improvement in occupational health services such as earlier provision of care.

Comparison to Other Data

The overall count and rate of OWCP accepted WC claims from 2007 to 2019 (1,227,850 claims; 3.39 per 100 covered employees) was similar to the count and rate of OSHA cases for federal agencies (1,258,328 cases; 3.46) for this same period. There were more pronounced differences between OWCP and OSHA counts and rates by department (Supplemental Digital Content 2, http://links.lww.com/JOM/B756). The analyzed OWCP data only included accepted claims, so it is possible that some of the situations where there were more OSHA cases than WC claims by Department were due in part to not including all submitted WC claims. It is more difficult to explain why there would be substantially more WC claims than OSHA cases on such a consistent basis for certain departments.

There are limited data sources to compare the types of injuries occurring in the OWCP data versus similar workforces. The BLS SOII does not include federal employees or Postal Service employees. However, the BLS SOII does include state and local government employers (North American Industrial Classification System code 921) and private couriers and messengers (NAICS 492) that may offer comparisons. There are differences in the types of work performed by federal, state, and local government employees, but they do involve several similar service areas including departments of public safety, corrections, justice, health, labor, transportation, education, and commerce, as well as many facilities and park maintenance operations. Private couriers and messengers perform delivery of packages and parcels and include such employers as FedEx and UPS, which perform some services comparable to the Postal Service.

Table 14 provides a comparison of OWCP WC claims and SOII cases for these groups from 2011 to 2019. Note that the BLS SOII definition of LT is 1 or more days away from work, whereas the OWCP definition of LT is 4 or more days away from work, which further limits these comparisons. In addition, the denominator for OWCP rates was an employee count compared to BLS SOII, where full-time equivalent employees are used. The OWCP dataset also had a larger proportion of unclassified events/exposures compared to BLS SOII. Specific differences by BLS event/exposure are noted and discussed below.

Falls, Slips, Trips

For OWCP, falls, slips, trips represented the most LT claims for both the Postal Service (34.7%) and all other covered federal employees (34.5%). These were higher proportions compared to private couriers/messengers (24.1%) and state/local government (28.0%). These types of injuries are associated with over 20 different OWCP cause codes and occur as the leading event/exposure in almost every federal department. Falls, slips, trips have occurred most in the Postal Service (41.1%), followed by the Department of Homeland Security (11.4%) and the Department of Veteran Affairs (10.1%). The highest rates per 100 employees for falls, slips, trips have been in the Corporation for National & Community Service (AmeriCorps), Postal Service, and the Department of Agriculture.

Overexertion and Bodily Reaction

For OWCP, overexertion and bodily reaction represented the second greatest number of LT claims for both the Postal Service (25.4%) and all other covered federal employees (25.0%). These were lower proportions compared to private couriers/messengers (46.9%) and state/local government (30.4%). The majority of these claims are associated with OWCP cause code handling manual equipment (36.6%), which occurred most in the Postal Service and Department

TABLE 8. Claim Counts and Costs by OWCP Cause Code, 2007–2019

OWCP Cause of Injury	BLS Event/ Exposure 1-Digit Code Description	Total Claim Count	%	LT Claim Count	%	Medical Paid Cost	%	Indemnity Paid Cost	%	Total Paid Cost	%	Ratio Paid Cost% to Count%	Mean Medical Paid Cost of Nonzero Cost Claims	Median Medical Paid Cost of Nonzero Cost Claims	Mean Indemnity Paid Cost of Nonzero Cost Claims	Median Indemnity Paid Cost of Nonzero Cost Claims
All	All	1,227,850	100.00%	667,204	100.00%	$7,792,379,897	100.00%	$9,714,696,057	100.00%	$17,507,075,953	100.00%	NA	$8,066	$816	$52,600	$13,955
Cause unknown	Unclassified	200,680	16.34%	106,775	16.00%	$1,791,822,745	22.99%	$2,587,969,808	26.64%	$4,379,792,553	25.02%	1.5	$11,905	$1,166	$66,278	$18,702
Handling manual equipment	Overexertion and bodily reaction	104,854	8.54%	57,966	8.69%	$959,625,867	12.31%	$1,140,679,772	11.74%	$2,100,305,639	12.00%	1.4	$11,621	$1,299	$51,936	$16,396
Slip/twist/trip—not falling	Falls, slips, trips	97,573	7.95%	56,950	8.54%	$514,410,398	6.60%	$600,370,774	6.18%	$1,114,781,172	6.37%	0.8	$6,343	$998	$37,039	$10,031
Fall	Falls, slips, trips	90,343	7.36%	53,388	8.00%	$593,826,061	7.62%	$676,922,063	6.97%	$1,270,748,124	7.26%	1.0	$8,074	$1,046	$44,927	$12,054
Striking against material equip	Contact with objects and equipment	72,796	5.93%	32,041	4.80%	$234,034,488	3.00%	$224,259,994	2.31%	$458,294,483	2.62%	0.4	$4,100	$493	$41,323	$9,943
Dog bite	Violence and other injuries by persons or animals	58,604	4.77%	18,790	2.82%	$73,156,087	0.94%	$54,873,444	0.56%	$128,029,531	0.73%	0.2	$1,453	$338	$32,109	$4,532
Handling packaged material, weight not stated	Overexertion and bodily reaction	56,579	4.61%	34,278	5.14%	$463,369,688	5.95%	$539,857,279	5.56%	$1,003,226,967	5.73%	1.2	$9,744	$1,282	$46,842	$13,144
Fall on floor/ work surface/ aisle	Falls, slips, trips	47,292	3.85%	29,780	4.46%	$295,693,152	3.79%	$364,224,741	3.75%	$659,917,893	3.77%	1.0	$8,816	$1,101	$56,364	$13,719
Fall on walkways/ curbs/porches	Falls, slips, trips	40,578	3.30%	24,165	3.62%	$199,650,344	2.56%	$232,558,044	2.39%	$432,208,388	2.47%	0.7	$6,429	$947	$41,329	$10,091
Vehicle accident (driver)	Transportation incidents	38,808	3.16%	26,332	3.95%	$503,235,012	6.46%	$505,894,998	5.21%	$1,009,130,009	5.76%	1.8	$14,256	$1,665	$61,906	$13,311
Handling mail containers	Overexertion and bodily reaction	36,866	3.00%	20,984	3.15%	$388,767,495	4.99%	$488,413,142	5.03%	$877,180,637	5.01%	1.7	$11,918	$1,358	$54,413	$15,843
Fall on stairway or steps	Falls, slips, trips	36,219	2.95%	23,152	3.47%	$206,990,052	2.66%	$262,800,742	2.71%	$469,790,793	2.68%	0.9	$7,060	$1,010	$45,093	$10,190
Animals/insects	Violence and other injuries by persons or animals	34,951	2.85%	12,421	1.86%	$51,286,849	0.66%	$42,591,263	0.44%	$93,878,111	0.54%	0.2	$1,981	$275	$45,995	$11,365

LT, lost-time.

TABLE 9. Claim Counts and Costs by OWCP Cause Code, 2020–2022

OWCP Cause of Injury	BLS Event/ Exposure 1-Digit Code Description	Total Claim Count	%	LT Claim Count	%	Medical Paid Cost	%	Indemnity Paid Cost	%	Total Paid Cost	%	Ratio Paid Cost% to Count %	Mean Medical Paid Cost of Nonzero Cost Claims	Median Medical Paid Cost of Nonzero Cost Claims	Mean Indemnity Paid Cost of Nonzero Cost Claims	Median Indemnity Paid Cost of Nonzero Cost Claims
All	All	318,969	100.00%	260,713	100.00%	$679,602,359	100.00%	$673,163,548	100.00%	$1,352,765,907	1	1	$4,711	$895	$23,188	$10,772
Exposure to COVID-19	Exposure to harmful substances or environments	136,458	42.78%	130,260	49.96%	$36,038,096	5.30%	$60,675,109	9.01%	$96,713,204	7.15%	0.2	$3,393	$125	$24,020	$3,179
Cause unknown	Unclassified	19,419	6.09%	14,184	5.44%	$96,003,053	14.13%	$106,893,811	15.88%	$202,896,864	15.00%	2.5	$6,988	$1,530	$27,339	$14,212
Handling packaged material, weight not stated	Overexertion and bodily reaction	12,960	4.06%	10,108	3.88%	$57,132,569	8.41%	$51,996,443	7.72%	$109,129,012	8.07%	2.0	$5,680	$1,405	$22,412	$12,615
Slip/twist/ trip—not falling	Falls, slips, trips	12,526	3.93%	9,318	3.57%	$41,580,255	6.12%	$38,084,766	5.66%	$79,665,021	5.89%	1.5	$4,323	$1,271	$19,042	$9,224
Fall on walkways/ curbs/ porches	Falls, slips, trips	11,826	3.71%	9,486	3.64%	$43,432,564	6.39%	$38,433,743	5.71%	$81,866,308	6.05%	1.6	$4,727	$1,263	$17,728	$8,814
Dog bite	Violence and other injuries by persons or animals	9,910	3.11%	6,500	2.49%	$9,907,675	1.46%	$5,914,079	0.88%	$15,821,754	1.17%	0.4	$1,408	$373	$16,337	$7,545
Fall on floor/ work surface/ aisle	Falls, slips, trips	9,397	2.95%	6,977	2.68%	$35,351,769	5.20%	$32,302,651	4.80%	$67,654,420	5.00%	1.7	$5,265	$1,371	$22,542	$10,856
Fall	Falls, slips, trips	8,527	2.67%	6,344	2.43%	$35,934,913	5.29%	$32,210,855	4.78%	$68,145,768	5.04%	1.9	$5,591	$1,445	$22,214	$11,313
Handling mail containers	Overexertion and bodily reaction	8,345	2.62%	6,537	2.51%	$29,747,732	4.38%	$26,458,885	3.93%	$56,206,617	4.15%	1.6	$4,582	$934	$20,447	$11,189
Vehicle accident (driver)	Transportation incidents	6,858	2.15%	5,792	2.22%	$53,487,243	7.87%	$44,885,267	6.67%	$98,372,510	7.27%	3.4	$8,928	$2,140	$25,649	$12,379
Fall on stairway or steps	Falls, slips, trips	6,804	2.13%	5,595	2.15%	$23,609,585	3.47%	$23,331,202	3.47%	$46,940,787	3.47%	1.6	$4,439	$1,179	$18,968	$9,188

Case rates are per 100 employees.

Note: The indemnity paid costs in this analysis did not include complete costs since federal agencies pay up to 45 days for temporary total indemnity following an injury, and these costs were not included. Data also only include what has been paid to date as of 4/23 and reserves for future costs are also not included.

LT, lost-time.

TABLE 10. Claim Counts and Costs by OWCP Nature Code, 2007–2019

OWCP Nature of Injury Code	Total Claim Count	%	LT Claim Count	%	Medical Paid Cost	%	Indemnity Paid Cost	%	Total Paid Cost	%	Ratio Paid Cost% to Count %	Mean Medical Paid Cost of Nonzero Cost Claims	Median Medical Paid Cost of Nonzero Cost Claims	Mean Indemnity Paid Cost of Nonzero Cost Claims	Median Indemnity Paid Cost of Nonzero Cost Claims
All	1,227,850	100.00%	667,204	100.00%	$7,792,379,897	100.00%	$9,714,696,057	100.00%	$17,507,075,953	100.00%	NA	$8,066	$816	$52,600	$13,955
Sprain/strain of ligament, muscle, tendon, not back	264,576	21.55%	147,660	22.13%	$1,529,322,188	19.63%	$1,772,531,567	18.25%	$3,301,853,755	18.86%	0.9	$7,091	$1,068	$40,134	$12,222
Back sprain/strain, back pain, subluxation, IVD disorders	142,519	11.61%	89,499	13.41%	$1,020,464,489	13.10%	$1,201,314,006	12.37%	$2,221,778,494	12.69%	1.1	$9,451	$1,026	$68,311	$11,991
Traumatic injury—unclassified (except disease, illness)	137,390	11.19%	73,450	11.01%	$1,077,374,560	13.83%	$1,211,846,104	12.47%	$2,289,220,664	13.08%	1.2	$9,569	$933	$55,993	$14,224
Contusion	104,039	8.47%	50,838	7.62%	$356,601,324	4.58%	$375,108,023	3.86%	$731,709,348	4.18%	0.5	$4,616	$498	$46,551	$9,971
Pain/swelling/stiffness/redness in joint	78,418	6.39%	44,609	6.69%	$501,081,835	6.43%	$655,411,335	6.75%	$1,156,493,170	6.61%	1.0	$8,219	$1,249	$46,802	$15,338
Puncture wound	74,083	6.03%	23,838	3.57%	$88,027,323	1.13%	$65,548,425	0.67%	$153,575,748	0.88%	0.1	$1,458	$338	$34,645	$4,735
Laceration	70,673	5.76%	29,698	4.45%	$94,054,811	1.21%	$73,966,077	0.76%	$168,020,888	0.96%	0.2	$1,754	$439	$37,699	$7,185
Pain, swelling, redness, stiffness, not in joint	68,205	5.55%	37,598	5.64%	$346,032,107	4.44%	$414,555,136	4.27%	$760,587,243	4.34%	0.8	$6,727	$767	$47,178	$11,967
Fracture	50,007	4.07%	37,389	5.60%	$458,177,635	5.88%	$468,456,859	4.82%	$926,634,494	5.29%	1.3	$10,559	$1,977	$35,546	$9,403
Insect bite	26,302	2.14%	8,543	1.28%	$11,230,552	0.14%	$3,637,358	0.04%	$14,867,910	0.08%	0.0	$600	$237	$38,695	$6,774

IVD, intervertebral disc.

TABLE 11. Claim Counts and Costs by OWCP Nature Code, 2020–2022

OWCP Nature of Injury Code	Total Claim Count	%	LT Claim Count	%	Medical Paid Cost	%	Indemnity Paid Cost	%	Total Paid Cost	%	Ratio Paid Cost% to Count %	Mean Medical Paid Cost of Nonzero Cost Claims	Median Medical Paid Cost of Nonzero Cost Claims	Mean Indemnity Paid Cost of Nonzero Cost Claims	Median Indemnity Paid Cost of Nonzero Cost Claims
All	318,969	100.00%	260,713	100.00%	$679,602,359	100.00%	$673,163,548	100.00%	$1,352,765,907	100.00%	1.0	$4,711	$895	$23,188	$10,772
COVID-19	136,458	42.78%	130,260	49.96%	$36,038,096	5.30%	$60,675,109	9.01%	$96,713,204	7.15%	0.2	$3,393	$125	$24,020	$3,179
Sprain/strain of ligament, muscle, tendon, not back	38,200	11.98%	27,953	10.72%	$146,483,237	21.55%	$136,547,541	20.28%	$283,030,778	20.92%	1.7	$4,847	$1,361	$20,608	$10,719
Traumatic injury—unclassified (except disease, illness)	17,596	5.52%	14,118	5.42%	$88,102,312	12.96%	$78,101,483	11.60%	$166,203,796	12.29%	2.2	$6,597	$1,281	$24,248	$13,029
Back sprain/strain, back pain, subluxation, IVD disorders	17,513	5.49%	13,537	5.19%	$69,109,475	10.17%	$57,654,078	8.56%	$126,763,553	9.37%	1.7	$5,449	$1,395	$25,034	$11,380
Pain, swelling, redness, stiffness, not in joint	14,209	4.45%	9,533	3.66%	$40,882,020	6.02%	$36,438,316	5.41%	$77,320,335	5.72%	1.3	$4,143	$944	$21,321	$10,317
Contusion	13,792	4.32%	9,601	3.68%	$31,710,735	4.67%	$25,730,760	3.82%	$57,441,495	4.25%	1.0	$3,127	$622	$21,143	$9,655
Pain/swelling/stiffness/redness in joint	12,338	3.87%	8,304	3.19%	$45,149,946	6.64%	$42,956,005	6.38%	$88,105,952	6.51%	1.7	$5,011	$1,360	$23,680	$13,006
Puncture wound	10,504	3.29%	6,480	2.49%	$9,246,364	1.36%	$4,269,135	0.63%	$13,515,499	1.00%	0.3	$1,265	$364	$13,951	$5,701
Laceration	10,441	3.27%	6,379	2.45%	$8,835,501	1.30%	$5,721,897	0.85%	$14,557,398	1.08%	0.3	$1,271	$406	$16,585	$6,475
Fracture	9,914	3.11%	8,452	3.24%	$55,926,620	8.23%	$48,403,125	7.19%	$104,329,744	7.71%	2.5	$6,682	$1,906	$17,140	$7,883

Case rates are per 100 employees.

Note: The indemnity paid costs in this analysis did not include complete costs since federal agencies pay up to 45 days for temporary total indemnity following an injury, and these costs were not included. Data also only include what has been paid to date as of 4/23 and reserves for future costs are also not included.

IVD, intervertebral disc; LT, lost-time; **OWCP,** US Department of Labor Office of Workers' Compensation Programs.

TABLE 12. Claim Counts and Costs by BLS Part of Body Code, 2007–2019

BLS Part of Body 2-Digit Description	BLS Part of Body 1-Digit Description	Total Claim Count	%	LT Claim Count	%	Medical Paid Cost	%	Indemnity Paid Cost	%	Total Paid Cost	%	Ratio Paid Cost % to Count %	Mean Medical Paid Cost of Nonzero Cost Claims	Median Medical Paid Cost of Nonzero Cost Claims	Mean Indemnity Paid Cost of Nonzero Cost Claims	Median Indemnity Paid Cost of Nonzero Cost Claims
All	All	1,227,850	100.00%	667,204	100.00%	$7,792,379,897	100.00%	$9,714,696,057	100.00%	$17,507,075,954	100.00%	NA	$8,066	$816	$52,600	$13,955
Back, including spine, spinal cord	Trunk	158,906	12.94%	98,844	14.81%	$1,324,473,714	17.00%	$1,510,570,670	15.55%	$2,835,044,385	16.19%	1.3	$10,936	$1,067	$70,693	$12,986
Hand(s)	Upper extremities	152,082	12.39%	65,995	9.89%	$384,986,259	4.94%	$442,637,704	4.56%	$827,623,963	4.73%	0.4	$3,262	$494	$32,837	$8,696
Leg(s)	Lower extremities	145,838	11.88%	82,475	12.36%	$1,135,592,953	14.57%	$1,386,657,719	14.27%	$2,522,250,672	14.41%	1.2	$9,714	$1,365	$46,162	$13,504
Ankle(s)	Lower extremities	95,894	7.81%	53,585	8.03%	$345,014,954	4.43%	$354,724,988	3.65%	$699,739,941	4.00%	0.5	$4,362	$639	$30,760	$8,116
Shoulder(s), including clavicle (s), scapula(e)	Upper extremities	93,380	7.61%	55,983	8.39%	$1,039,654,019	13.34%	$1,337,372,378	13.77%	$2,377,026,397	13.58%	1.8	$13,155	$2,710	$47,274	$22,180
Other multiple body parts	Multiple body parts	91,215	7.43%	56,370	8.45%	$1,081,615,727	13.88%	$1,198,425,934	12.34%	$2,280,041,660	13.02%	1.8	$15,023	$1,223	$73,577	$18,871
Arm(s)	Upper extremities	64,564	5.26%	31,619	4.74%	$333,464,060	4.28%	$411,163,654	4.23%	$744,627,714	4.25%	0.8	$6,520	$779	$41,883	$13,858
Foot (feet)	Lower extremities	62,920	5.12%	34,958	5.24%	$300,499,461	3.86%	$314,192,849	3.23%	$614,692,310	3.51%	0.7	$6,084	$643	$36,139	$8,574
Face	Head	53,152	4.33%	22,926	3.44%	$68,898,617	0.88%	$74,255,344	0.76%	$143,153,961	0.82%	0.2	$1,879	$330	$57,429	$7,505
Wrist(s)	Upper extremities	36,956	3.01%	19,259	2.89%	$200,776,973	2.58%	$265,637,426	2.73%	$466,414,399	2.66%	0.9	$6,578	$1,095	$36,848	$11,108
Head, N.E.C.	Head	32,983	2.69%	19,253	2.89%	$158,212,506	2.03%	$380,681,781	3.92%	$538,894,287	3.08%	1.1	$6,319	$685	$122,761	$18,436
Chest, including ribs, internal organs	Trunk	32,340	2.63%	17,508	2.62%	$120,950,882	1.55%	$121,520,861	1.25%	$242,471,743	1.38%	0.5	$5,103	$588	$40,493	$4,985
Multiple upper extremities locations	Upper extremities	31,920	2.60%	16,011	2.40%	$203,534,389	2.61%	$261,424,741	2.69%	$464,959,130	2.66%	1.0	$7,946	$854	$47,172	$14,131

TABLE 13. Claim Counts and Costs by BLS Part of Body Code, 2020–2022

BLS Part of Body 2-Digit Description	BLS Part of Body 1-Digit Description	Total Claim Count	%	LT Claim Count	%	Medical Paid Cost	%	Indemnity Paid Cost	%	Total Paid Cost	%	Ratio Paid Cost% to Count %	Mean Medical Paid Cost of Nonzero Cost Claims	Median Medical Paid Cost of Nonzero Cost Claims	Mean Indemnity Paid Cost of Nonzero Cost Claims	Median Indemnity Paid Cost of Nonzero Cost Claims
All	All	318,969	100.00%	260,713	100.00%	$679,602,359	100.00%	$673,163,548	100.00%	$1,352,765,907	100.00%	NA	$4,711	$895	$23,188	$10,772
Body Systems	Body systems	136,458	42.78%	130,260	49.96%	$36,038,096	5.30%	$60,675,109	9.01%	$96,713,204	7.15%	0.2	$3,393	$125	$24,020	$3,179
Ankle(s)	Lower extremities	21,524	6.75%	16,201	6.21%	$58,884,648	8.66%	$48,747,270	7.24%	$107,631,918	7.96%	1.2	$3,594	$866	$16,413	$7,829
Leg(s)	Lower extremities	21,497	6.74%	15,174	5.82%	$93,686,025	13.79%	$91,598,366	13.61%	$185,284,391	13.70%	2.0	$5,647	$1,497	$22,489	$11,900
Back, including spine, spinal cord	Trunk	20,294	6.36%	15,584	5.98%	$79,772,072	11.74%	$66,473,892	9.87%	$146,245,964	10.81%	1.7	$5,498	$1,354	$25,381	$12,078
Hand(s)	Upper extremities	19,773	6.20%	12,318	4.72%	$27,735,825	4.08%	$17,871,983	2.65%	$45,607,808	3.37%	0.5	$1,981	$516	$14,150	$6,608
Other multiple body parts	Multiple body parts	16,360	5.13%	13,173	5.05%	$96,391,918	14.18%	$84,577,528	12.56%	$180,969,446	13.38%	2.6	$7,506	$1,507	$25,968	$13,140
Arm(s)	Upper extremities	12,864	4.03%	8,698	3.34%	$50,539,636	7.44%	$46,118,580	6.85%	$96,658,216	7.15%	1.8	$5,287	$1,221	$22,618	$12,709
Shoulder(s), including clavicle(s), scapula(e)	Upper extremities	11,639	3.65%	8,460	3.24%	$77,276,678	11.37%	$80,536,184	11.96%	$157,812,862	11.67%	3.2	$8,146	$2,687	$26,191	$16,867
Foot (feet)	Lower extremities	9,386	2.94%	6,921	2.65%	$25,904,394	3.81%	$21,295,993	3.16%	$47,200,387	3.49%	1.2	$3,767	$814	$15,601	$7,014
Unclassified	Unclassified	6,856	2.15%	4,993	1.92%	$20,051,298	2.95%	$28,718,252	4.27%	$48,769,550	3.61%	1.7	$5,079	$1,042	$28,747	$14,992
Wrist(s)	Upper extremities	6,716	2.11%	4,616	1.77%	$22,877,422	3.37%	$19,474,324	2.89%	$42,351,746	3.13%	1.5	$4,445	$1,267	$17,801	$8,709
Face	Head	6,378	2.00%	3,808	1.46%	$5,753,719	0.85%	$5,089,083	0.76%	$10,842,803	0.80%	0.4	$1,563	$341	$27,658	$12,035

Case rates are per 100 employees.

Note: The indemnity paid costs in this analysis did not include complete costs because federal agencies pay up to 45 days for temporary total indemnity following an injury, and these costs were not included. Data also only include what has been paid to date as of 4/23 and reserves for future costs are also not included.

BLS, Bureau of Labor Statistics; LT, lost-time.

TABLE 14. Comparison of Lost-Time OWCP WC Data Versus BLS Data by Event/Exposure 2011–2019

BLS Event/ Exposure 1-Digit Code Description	US Postal Service LT WC Count %	Rate per 100 Employees	Rank	BLS SOII Private Industry Couriers and Messengers Case %	Rate per 100 Employees	Rank	All Federal Employers Except Postal Service LT WC Count %	Rate per 100 Employees	Rank	BLS SOII State and Local Government Case %	Rate per 100 Employees	Rank
Total	100.00%	3.91	NA	100.00%	2.91	NA	100.00%	1.23	NA	100.00%	1.64	NA
Falls, slips, trips	34.66%	1.35	1	24.07%	0.71	2	34.47%	0.42	1	27.98%	0.46	2
Overexertion and bodily reaction	25.40%	0.99	2	46.94%	1.38	1	25.03%	0.31	2	30.35%	0.50	1
Contact with objects and equipment	11.91%	0.47	3	18.54%	0.54	3	12.63%	0.15	3	14.42%	0.24	4
Violence and other injuries by persons or animals	9.78%	0.38	4	1.51%	0.04	5	3.94%	0.05	5	16.17%	0.27	3
Transportation incidents	6.14%	0.24	5	6.79%	0.20	4	4.35%	0.05	4	6.64%	0.11	5
Exposure to harmful substances or environments	1.31%	0.05	6	1.48%	0.04	6	2.93%	0.04	6	4.15%	0.07	6
Fires and explosions	0.04%	0.001	7	0.00%	0.00	7	0.38%	0.005	7	0.29%	0.00	7
Unclassified	10.76%	0.42	NA	NA	NA	NA	16.26%	0.20	NA	NA	NA	NA
Other	NA	NA	NA	0.68%	0.02	NA	NA	NA	NA	0.10%	0.00	NA

OWCP LT = 4 or more days away from work.
BLS LT = 1 or more days away from work.
BLS, Bureau of Labor Statistics; LT, lost-time; WC, workers' compensation.

of Veteran Affairs, and handling packaged material, weight not stated (18.4%), which occurred most in the Postal Service and Department of Homeland Security. This was followed by handling tools or instruments (5.9%), which occurred most in the Department of Navy, but many other departments as well. The highest rates per 100 employees for overexertion and bodily reaction have been in the Postal Service and the Departments of Homeland Security and Agriculture.

Contact With Objects and Equipment

For OWCP, contact with objects and equipment represented the third highest number of LT claims for both the Postal Service (11.9%) and all other covered federal employees (12.6%). These were lower proportions compared to private couriers/messengers (18.5%) and state/local government (14.4%). These claims are associated most with OWCP cause codes striking against material equip (46.6%) and falling objects (14.3%), which occurred most in the Postal Service and Department of Homeland Security. The highest rates per 100 employees for contact with objects and equipment have been in the Corporation for National & Community Service (AmeriCorps), Postal Service, and the Departments of the Interior and Homeland Security.

Violence and Other Injuries by Persons or Animals

For OWCP, violence and other injuries by persons or animals represented the fourth highest number of LT claims for the Postal Service (9.8%) and the fifth highest for all other covered federal employees (3.9%). This was a much higher proportion compared to private couriers/messengers (1.51%), but much lower compared to state/local government (14.4%). These types of claims are associated most with the OWCP cause code dog bite (54%), mostly in the Postal Service, and animals/insects (32.7%), which occurred most in the Postal Service and the Departments of the Interior and Agriculture. This is also due in part to OWCP cause code violence (11.6%) due to public safety–related violence claims in the Departments of Justice and Homeland Security as well as healthcare-related violence in the Department of Veterans Affairs. The highest rates per 100 employees for violence and other injuries by persons or animals have been in the Postal Service and the Departments of the Interior and Agriculture.

Transportation Incidents

For OWCP, transportation incidents represented the fifth highest number of LT claims for the Postal Service (6.1%) and the fourth highest for all other covered federal employees (4.3%). These were lower proportions compared to private couriers/messengers (6.8%) and state/local government (6.6%). The majority of these claims are associated with OWCP cause code vehicle accident (driver) (78.0%), which primarily occurred in the Postal Service, followed by the Department of Homeland Security. The highest rates per 100 employees for transportation incidents have been in the Corporation for National & Community Service (AmeriCorps), the Postal Service, and the Department of Homeland Security.

Exposure to Harmful Substances or Environments

For OWCP, exposure to harmful substances or environments represented the sixth highest number of LT claims for both the Postal Service (1.3%) and for all other covered federal employees (2.9%). This was a similar proportion compared to private couriers/messengers (1.5%), but lower compared to state/local government (4.2%). These claims are most associated with OWCP cause codes dust/gas/chemical (29%) and weather exposure (22%), which occurred most in the Postal Service and the Departments of Agriculture and Homeland Security, and poison oak/ivy/sumac (20.7%), which occurred most in the Departments of Agriculture and the Interior. The highest rates per 100

employees for exposure to harmful substances or environments have been in the Departments of Agriculture and the Interior, and the Corporation for National & Community Service (AmeriCorps).

Fires and Explosions

For OWCP, fires and explosions represented the lowest number of LT claims for both the Postal Service (0.04%) and for all other covered federal employees (0.38%). These were similar proportions compared to private couriers/messengers (0.0%) and state/local government (0.29%). These claims map to OWCP cause codes fire/smoke (75%) and explosion (25%) and occurred most frequently in the Departments of Agriculture, Interior, Army, and Justice. The highest rates per 100 employees for fires and explosions have been in the Departments of the Interior, Agriculture and Justice.

Limitations

Accuracy of Codes

A main limitation in this study is that the accuracy of the OWCP codes for nature, cause, and part of body cannot be completely evaluated. In state WC systems, similar Workers' Compensation Insurance Organizations codes have been found to be predominately complete, accurate, and useful.[15] However, with large data systems using a multitude of coders, coding inaccuracies do occur. One way to investigate the accuracy is to compare incident narratives versus coded outcomes. In this analysis, OWCP incident narratives were not available. Another approach is to examine claim code combinations to verify that the nature, cause, and part of body are plausible for the same claim. The authors conducted a cross tabulation of codes and found that the codes were largely consistent, but there were combinations in some claims that did not seem plausible. Future analyses will seek to quantity the consistency of codes in conjunction with incident narratives when available.

Another limitation is that a large proportion of clams were not coded for nature, cause, OSHA source, and OSHA cause type. For example, from 2007 to 2022, 220,099 claims (14.2%) with $4.58B (24.3%) total paid costs were not coded for cause of injury. Furthermore, from 2007 to 2022, the vast majority (71.9%) of fatal claims were not coded for cause of injury. The proportion of coded claims tended to increase over time. This enables better tracking, but if the coding of certain types of claims tended to improve more than others, it could explain some differences in trends over time not related to actual workplace changes.

Use of FedScope, QCEW, and OSHA Denominators

Because the OWCP WC data did not include employment denominators, the authors accessed FedScope, QCEW, and OSHA log reports for federal agencies from 2007 to 2022 to establish denominators for federal departments. Because FedScope is a vetted, publicly available federal employment data source and available in calendar years similar to the OWCP data, the authors decided to use FedScope data wherever possible. Exceptions included using QCEW data for the Postal Service and using OSHA log data for the Department of State, Executive Office of the President and the Federal Judiciary, and Tennessee Valley Authority. A further limitation is that the denominators used for the OWCP analyses are employee counts that do not account for hours worked per employee.

The choice of these denominators is supported by the overall consistency between the data sources for employee counts. For example, FedScope and OSHA employee counts in matched departments were largely consistent (0.2% difference). In addition, Postal Service employee counts 2007–2022 using QCEW only differed slightly (0.3%) compared to the reported employee counts on OSHA logs. The resulting OWCP WC rates 2007–2019 were similar to reported OSHA log rates. Other authors[4,5] have also previously used FedScope as a denominator for federal WC analyses.

Cost Data

The total paid cost of $19B from 2007 to 2022 is an underestimate of actual costs. Indemnity costs in this analysis did not include complete costs for temporary total indemnity since federal agencies pay up to 45 days following an injury and these costs were not included. Note that if all agencies pay the first 45 days of indemnity, this likely would not distort the relative costs of injuries of different agencies. Costs also only included paid medical and indemnity costs to date, as reserves for future anticipated payments were not available. All costs are nominal and inflation adjustments were not applied. Inflation adjustment would require much additional data and be complex, because costs of individual claims are paid over multiple years. However, comparison of inflation-adjusted costs is not likely to yield materially different assessment of the relative costs of claims of different departments and claim categories.

Strengths

This study represents one of the most comprehensive, detailed analyses of federal WC claims and followed standardized guidelines for reporting observational studies (Supplemental Digital Content 3, http://links.lww.com/JOM/B757).[28] Previous studies[4,5] have reviewed data only from the DOD. This study analyzed claims data from all departments for an extended period (2007–2022) and was able to match to employee count data to create rates of claims. This study also created the OWCP and BLS OIICS code crosswalks that were useful for comparing injury/illness trends to other data sources.

CONCLUSIONS

The OWCP WC claims data represent a potentially rich source for employing agencies to provide insights into the burden of workplace injury/illness on federal workers. OWCP WC data on medical and indemnity costs by injury/illness nature, cause, and part of body may be provided to employing agencies to assist in their worker health and safety programs.

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