



Profile: Public Warehousing and Storage



Office of General Industry Enforcement

Industry Group 422 – Public Warehousing and Storage

Industry Description:

Public warehousing and storage includes establishments engaged in the warehousing and storage of farm products, SIC 4221; perishable goods under refrigeration, SIC 4222; general line of goods, SIC 4225; and special products, not elsewhere classified, SIC 4226.

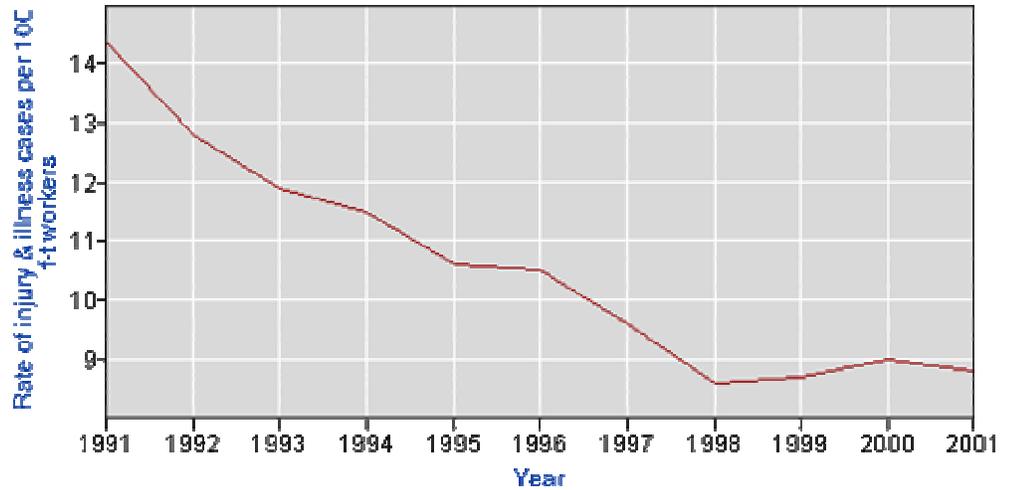
Process Description:

A fleet of trucks of various sizes is often required for delivery to and from the warehouse. Materials for storage are unloaded at the docks and placed in designated areas. Length of storage time ranges from a day to years. Items stored may include farm products such as beans, cotton, grains, potatoes, tobacco and wool. Special types of warehousing may also be used for automobile storage, fur storage, lumber terminals, oil and gasoline storage, petroleum and chemical bulk stations and terminals as well as for textiles and liquor. Refrigerated warehouses may store any type of perishable goods and some furs. Also included are food lockers, which may or may not provide services for processing, preparing, or packaging such food for storage. Materials are moved by either hand or mechanical handling equipment (forklifts, etc.) to storage bays or racks or refrigerated rooms.

BLS Profile Total Recordable Case Rate (Industry Group - 422)

Year	Annual
1991	14.4(F)
1992	12.8
1993	11.9
1994	11.5
1995	10.6
1996	10.5(C)
1997	9.6
1998	8.6
1999	8.7
2000	9.0
2001	8.8

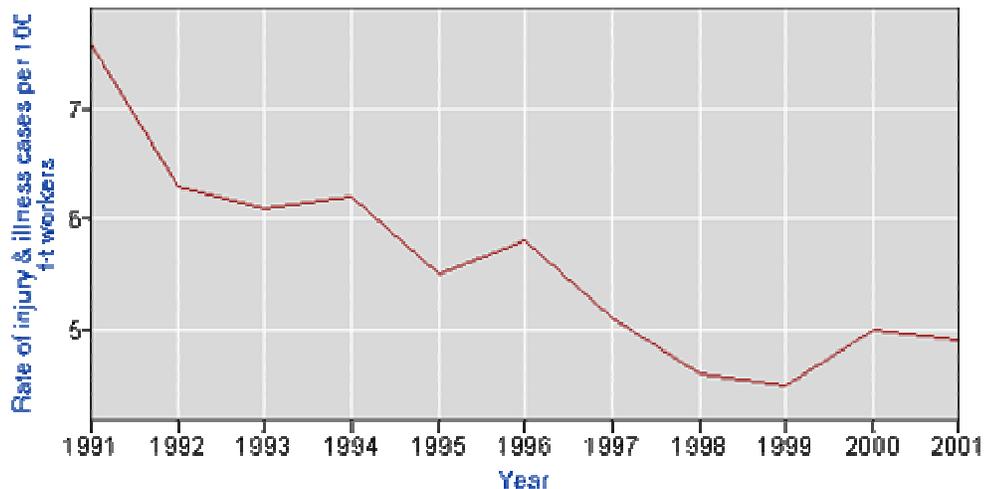
F : Includes fatalities
C : Continuity break



Lost Workday Case Rate (Industry Group - 422)

Year	Annual
1991	7.6
1992	6.3
1993	6.1
1994	6.2
1995	5.5
1996	5.8(C)
1997	5.1
1998	4.6
1999	4.5
2000	5.0
2001	4.9

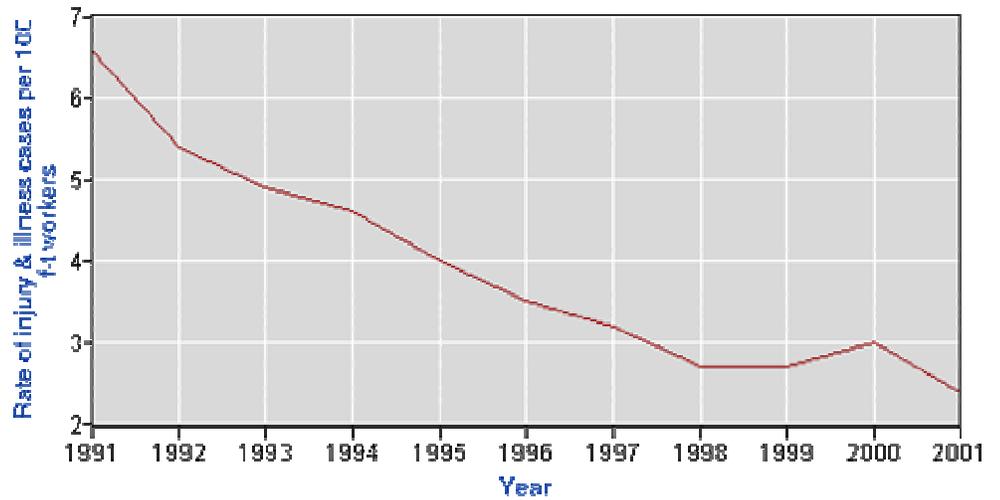
C : Continuity break



Cases with Days Away Rate (Industry Group - 422)

Year	Annual
1991	6.6
1992	5.4
1993	4.9
1994	4.6
1995	4.0
1996	3.5(C)
1997	3.2
1998	2.7
1999	2.7
2000	3.0
2001	2.4

C : Continuity break



Fatality Rate for Industry Group 422 (2001): 8.3
National Average - All Industries (2001): 4.3

Source: Bureau of Labor Statistics (National data)
 Fatality rates are number of fatalities per 100,000 workers.

National Summary by Region

NAICS 4931

Regions	Establishments with 10 or more employees		Number of FY 2003 Inspections	
	Establishments	Employees	Total	Programmed
1	221	13191	33	6
2	710	43762	70	37
3	147	NA	46	26
4	279	NA	33	13
5	896	77390	77	36
6	696	54736	29	16
7	240	19549	20	13
8	114	5595	12	7
9	NA	NA	15	14
10	22	1042	4	1

N/A = Data not available

Equivalent Industry Group 422

Regions	Establishments with 10 or more employees		Number of FY 2003 Inspections	
	Establishments	Employees	Total	Programmed
1	227	13346	33	6
2	733	45107	82	45
3	409	34890	54	30
4	695	48351	37	13
5	923	81024	85	39
6	731	57155	34	21
7	247	19671	21	13
8	118	5855	15	9
9	NA	NA	14	13
10	22	1042	4	1

Establishment and employment counts come from Dunn & Bradstreet, June 2003.

Inspection data from IMIS database.

Inspection and establishment counts include only Federal Area Office inspections and establishments in Federal OSHA states.

Average Case and Demographic Characteristics

Average cases per year, 1995 - 2000		5,103
Demographics of worker	Sex	87.6% men
	Age	29.8% ages 25-34 28.9% ages 35-44 16.2% ages 45-54
	Length of service with employer	38.4% 1-5 years 36.5% less than 1 year 21.9% More than 5 years
	Race/ethnic origin	54.0% white non-Hispanic 15.1% Hispanic of any race 12.4% black non-hispanic
Characteristics of injury/illness	Days away from work	49.9% 1-5 days 30.6% 6-30 days 19.5% 31 or more days
	Nature of injury/illness	46.2% sprains/strains 16.0% "all other" natures 11.9% bruises/contusions
	Part of body affected	28.2% back 25.2% legs/knees/feet/toes 16.4% arms/wrists/hands/fingers
	Source of injury/illness	26.9% containers 17.5% vehicles (incl. forklifts) 13.3% worker motion/position 13.0% floor/ground surfaces 10.3% "all other sources"
	Event or exposure	27.8% overexertion 15.2% struck by object 12.6% "all other" events/exposures 9.0% vehicle incidents

Source: OSHA Office of Statistical Analysis compilation of BLS data

Note: The percentages on this table do not sum to 100%. Only the most frequently coded characteristics are listed. The "All Other" category should not be interpreted as being all inclusive of the categories not listed above.

Inspection Summary

FY 2003 Federal OSHA Inspection Data Industry Group 422

Federal Data Only	I	II	III	IV	V	VI	VII	VIII	IX	X	Total
Total Inspections	33	82	54	37	85	34	21	15	14	4	379
Safety	24	62	29	21	47	23	11	12	14	3	246
Health	9	20	25	16	38	11	10	3	0	1	133
Inspections By Type											
Unprogrammed	27	37	24	24	46	13	8	6	1	3	189
Accidents	0	0	1	2	0	1	0	0	0	0	4
Complaints	18	17	19	19	43	9	8	3	1	2	139
Referrals	8	13	4	1	1	2	0	1	0	1	31
Monitoring	0	1	0	0	0	0	0	0	0	0	1
Variance	0	0	0	0	0	0	0	0	0	0	0
Follow-Up	0	3	0	1	0	1	0	2	0	0	7
Unprog. Related	1	3	0	1	2	0	0	0	0	0	7
Other	0	0	0	0	0	0	0	0	0	0	0
Programmed	6	45	30	13	39	21	13	9	13	1	190
Planned	6	45	29	13	37	18	13	9	13	1	184
Prog. Related	0	0	0	0	1	2	0	0	0	0	3
Other	0	0	1	0	1	1	0	0	0	0	3

Source: IMIS Database

Top 10 Violations Cited

Std.	#Cited	#Insp	Description
1910.178	199	124	Powered Industrial Trucks
1910.305	81	45	Wiring Methods, Components, Equipment – General Use
1910.1200	73	38	Hazard Communication
1910.303	61	37	Electrical Systems Design, General
1910.146	56	6	Permit-Required Confined Spaces
1910.23	52	40	Guarding Floor & Wall Openings
1910.134	51	21	Respiratory Protection
1910.37	49	36	Means of Egress
1910.132	47	35	Personal Protective Equipment
1910.272	46	11	Grain Handling Facilities

Source: IMIS Database – FY 2003 (Federal Only)

Average Number of Employees per Establishment: 19
Percent small establishments: 77.2 %

Some Potential Hazards and Their Sources

Hazard	Source
Slips and Trips	Floors – wet, icy; housekeeping issues
Vehicle – Vehicle Accidents	Mechanical handling equipment – forklifts, etc.
Vehicle – Employee Accidents	Mechanical handling equipment – forklifts, etc.
Falls	Overhead storage platforms
Crushing – Shifting or Falling Material	Mechanical handling equipment, dock boards, stored material
Respiratory Ailments, Headaches	Carbon monoxide

2001 BLS Industry Data for Industry Group 422 – PUBLIC WAREHOUSING AND STORAGE

All Reported Cases	4970	
Nature of Illness or Injury	Number	% Total
Sprains, Strains	2392	48.13
Fractures	539	10.85
Cuts, Punctures	290	5.84
Bruises	545	10.97
Heat Burns	54	1.09
Chemical Burns	140	2.82
Amputations	0	0.00
Carpal Tunnel	84	1.69
Tendonitis	0	0.00
Mult Trauma Total	229	4.61
Mult Trauma With Fracture	14	0.28
Mult Trauma With Sprain	140	2.82
Back Pain Total	171	3.44
Back Pain Hurt Back Only	108	2.17
All Other	500	10.06
Part of Body Affected	Number	% Total
Head Total	235	4.73
Eyes	176	3.54
Neck	82	1.65
Trunk Total	1774	35.69
Trunk Back	1354	27.24
Trunk Shoulder	209	4.21
Upper Extremities Total	997	20.06
Upper Extremities Finger	345	6.94
Upper Extremities Hand	174	3.50
Upper Extremities Wrist	227	4.57
Lower Extremities Total	1523	30.64
Lower Extremities Knee	304	6.12
Lower Extremities Foot Toe	440	8.85
Body Systems	0	0.00
Multiple Body Parts	338	6.80
All Other Body Parts	0	0.00
Source of Injury or Illness	Number	% Total
Chem And Chem Products	188	3.78
Containers	1072	21.57
Furniture And Fixtures	158	3.18
Machinery	122	2.45
Parts And Materials	343	6.90
Worker Motion	594	11.95
Floors Walkways	837	16.84
Handtools	67	1.35

Vehicle	994	20.00
Health Care Patient	0	0.00
All Other Sources	596	11.99

Sex	Number	% Total
Men	3990	80.28
Women	981	19.74
Sex Not Reported	0	0.00

Age	Number	% Total
Under 14	0	0.00
14 to 15	0	0.00
16 to 19	99	1.99
20 to 24	498	10.02
25 to 34	1221	24.57
35 to 44	1623	32.66
45 to 54	963	19.38
55 to 64	516	10.38
65 And Over	0	0.00
Not Reported	40	0.80

Race	Number	% Total
White Non Hispanic	2667	53.66
Black Non Hispanic	835	16.80
Hispanic	763	15.35
Asian Or Pacific Islander	47	0.95
American Indian	0	0.00
Race Not Reported	658	13.24

Length of Service	Number	% Total
Less Than 3 Months	602	12.11
3 to 11 Months	1107	22.27
1 to 5 years	2113	42.52
More Than 5 Years	870	17.51
Service Not Reported	278	5.59

Days away from work	Number	% Total
1 Day	1022	20.56
2 Days	454	9.13
3 to 5 Days	669	13.46
6 to 10 Days	755	15.19
11 to 20 Days	650	13.08
21 to 30 Days	308	6.20
31 Days Or More	1112	22.37
Median Days Away	8	N/A

Event/Exposure Leading to Injury	Number	% Total
Total Contact With Objects	1114	22.41
Struck By Object	458	9.22
Struck Against Object	316	6.36
Caught In Object	288	5.79
Fall to Lower Level	277	5.57

Fall On Same Level	338	6.80
Slips Or Trips	69	1.39
Overexertion Total	1447	29.11
Overexertion In Lifting	778	15.65
Repetitive Motion	181	3.64
Exposure to Harmful Substance	250	5.03
Transportation Accidents	646	13.00
Fires And Explosions	0	0.00

Event/Exposure Leading to Injury	Number	% Total
Total Assaults - Violent Acts	19	0.38
Assaults By Person	16	0.32
All Other Assaults	0	0.00
All Other Events	629	12.66

Photo Credit:

- 1) Warehouse scene - Occupational Safety and Health Administration Website.
www.osha.gov