



PROFILE: Preserved Fruits & Vegetables



Office of General Industry Enforcement

Industry Group 203 – PRESERVED FRUITS & VEGETABLES

Process Description

The canned products of this industry group – SIC's 2032, 2033, 2034, 2035, 2037, and 2038 – are distinguished by their processing rather than by the container. The products may be shipped in bulk or in individual cans, bottles, retort pouch packages, or other containers.

Food processing occupies a powerful position within the food and fiber system. The industry has been likened to the center of an hourglass: raw agricultural commodities from more than two million farms and ranches flow through roughly 20,000 processors, which in turn sell their array of processed products to more than half a million food wholesalers and retailers. Over a hundred million domestic households consume the meat and dairy products, canned and frozen fruits and vegetables, milled grains, bakery products, beverages, and seafood.

The importance of food processing lies in its various economic functions. Foremost, processors convert food materials into finished, consumer-ready products using labor, machinery, energy, and management. They employ handling, manufacturing, and packaging techniques to add economic value to raw commodities harvested from the farm or the sea. Virtually all agricultural products are processed to some degree before reaching consumers. The value added varies by commodity: steers become meat, potatoes are turned into French fries, wheat is made into flour, apples become juice or sauce, and fresh salmon emerges as canned salmon. The farm value of fruit and vegetable products at the retail level—frozen peas, for instance—is about 20 percent. Thus, 80 percent of the retail value is "added" to the raw product during processing and distribution.

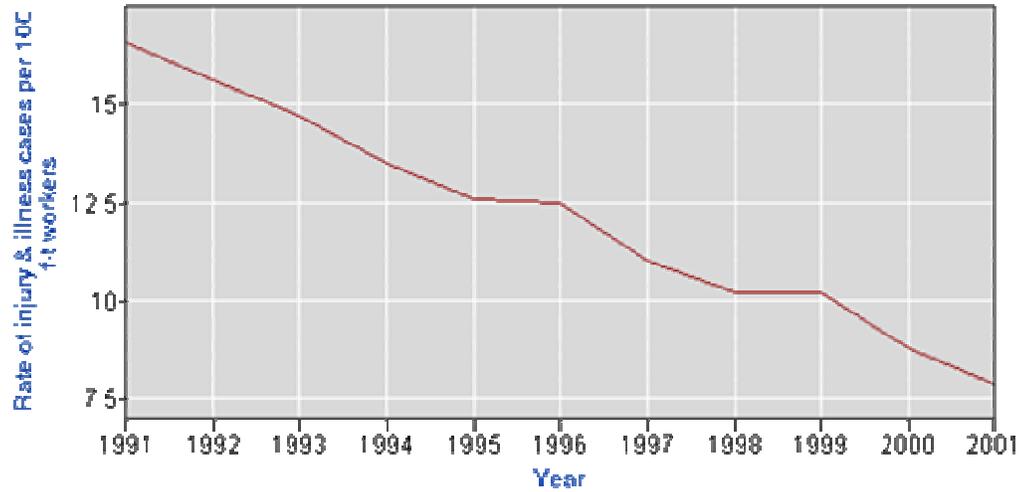
Processors serve as middlemen within the food system. Consumer demand and agricultural supply information come together at the food processing center. For instance, a tight supply of frozen corn at the retail level is eventually translated into higher processor prices, a greater willingness to pay for key inputs, and a price signal to farmers to expand production or sell off their stored crop. In contrast, an unexpectedly short crop induces processors to raise their prices to retailers and distributors, which subsequently prompts a decrease in consumer demand.

Source: Standard Industrial Classification Manual 1987; Washington State Labor Market, 2003

BLS Profile Total Recordable Case Rate (Industry Group 203)

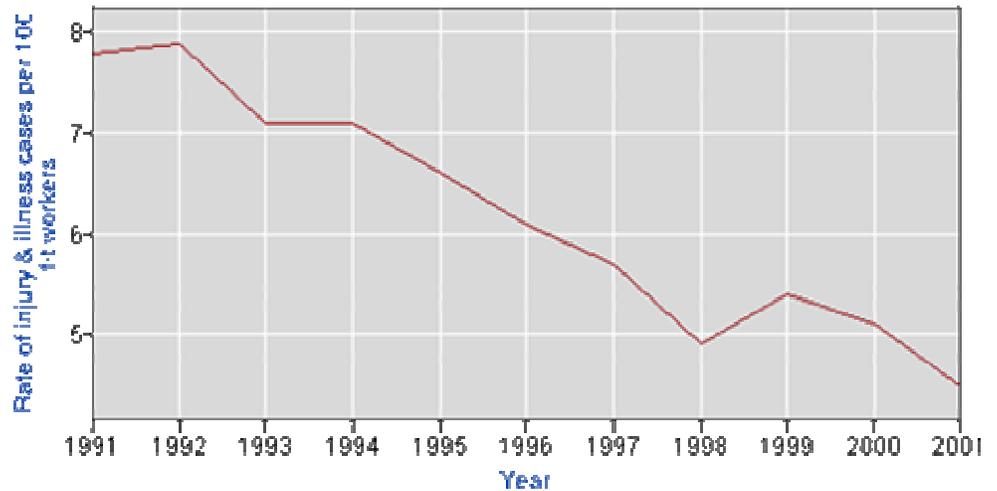
| Year | Annual |
|------|---------|
| 1991 | 16.6(F) |
| 1992 | 15.6 |
| 1993 | 14.7 |
| 1994 | 13.5 |
| 1995 | 12.6 |
| 1996 | 12.5 |
| 1997 | 11.0 |
| 1998 | 10.2 |
| 1999 | 10.2 |
| 2000 | 8.8 |
| 2001 | 7.9 |

F: Includes fatalities



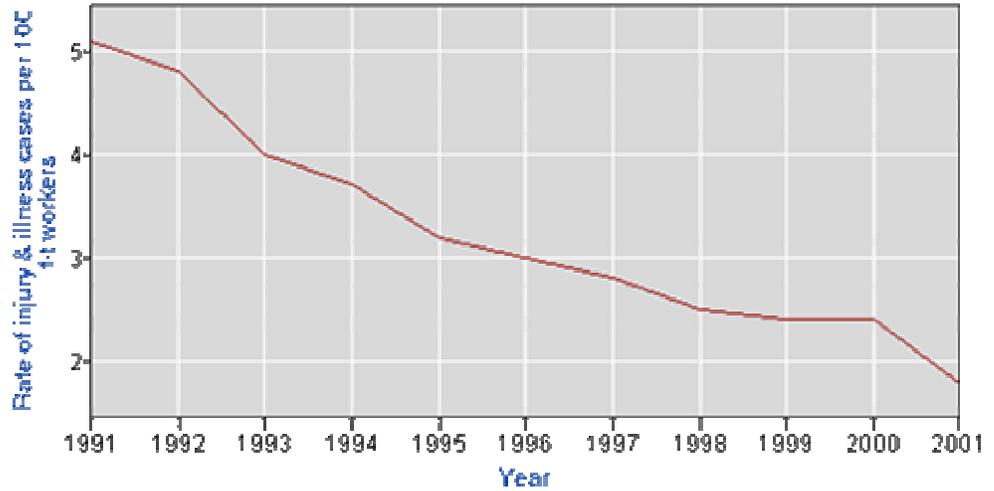
Lost Workday Case Rate (Industry Group 203)

| Year | Annual |
|------|--------|
| 1991 | 7.8 |
| 1992 | 7.9 |
| 1993 | 7.1 |
| 1994 | 7.1 |
| 1995 | 6.6 |
| 1996 | 6.1 |
| 1997 | 5.7 |
| 1998 | 4.9 |
| 1999 | 5.4 |
| 2000 | 5.1 |
| 2001 | 4.5 |



Cases with Days Away Rate (Industry Group – 203)

| Year | Annual |
|------|--------|
| 1991 | 5.1 |
| 1992 | 4.8 |
| 1993 | 4.0 |
| 1994 | 3.7 |
| 1995 | 3.2 |
| 1996 | 3.0 |
| 1997 | 2.8 |
| 1998 | 2.5 |
| 1999 | 2.4 |
| 2000 | 2.4 |
| 2001 | 1.8 |



Fatality Rate for Industry Group 203 (2001): 4.8
National Average – All Industries (2001): 4.3

Source: Bureau of Labor Statistics (National Data)

Fatality rates are number of fatalities per 100,000 workers and were calculated by the Office of General Industry Enforcement using BLS data.

National Summary by Region

NAICS 3114

| Regions | Establishments with 10 or more employees | | Establishments with 9 or fewer employees | | Number of FY 2003 Inspections | |
|-----------|--|-----------|--|-----------|-------------------------------|------------|
| | Establishments | Employees | Establishments | Employees | Total | Programmed |
| 1 | 54 | 5218 | 51 | 181 | 2 | 1 |
| 2 | 119 | 10531 | 107 | 373 | 7 | 2 |
| 3 | 69 | 44 | NA | NA | 6 | 3 |
| 4 | 106 | 60 | NA | NA | 5 | 0 |
| 5 | 221 | 17280 | 128 | 457 | 10 | 2 |
| 6 | 108 | 11574 | 133 | 391 | 13 | 7 |
| 7 | 45 | 3768 | 55 | 164 | 0 | 0 |
| 8 | 21 | 564 | 61 | 174 | 2 | 2 |
| 9 | NA | NA | NA | NA | 0 | 0 |
| 10 | 28 | 6088 | 15 | 63 | 0 | 0 |

Equivalent Industry Group 203

| Regions | Establishments with 10 or more employees | | Establishments with 9 or less employees | | Number of FY 2002 Inspections | |
|-----------|--|-----------|---|-----------|-------------------------------|------------|
| | Establishments | Employees | Establishments | Employees | Total | Programmed |
| 1 | 19 | 1945 | 20 | 68 | 1 | 1 |
| 2 | 44 | 4475 | 31 | 102 | 9 | 6 |
| 3 | 23 | 3106 | 16 | 35 | 4 | 2 |
| 4 | 30 | 5752 | 66 | 185 | 2 | 0 |
| 5 | 95 | 7303 | 50 | 163 | 0 | 0 |
| 6 | 31 | 3960 | 62 | 170 | 0 | 0 |
| 7 | 12 | 787 | 30 | 71 | 0 | 0 |
| 8 | 1 | 12 | 26 | 73 | 0 | 0 |
| 9 | NA | NA | NA | NA | 0 | 0 |
| 10 | 4 | 564 | 5 | 16 | 0 | 0 |

NA = Data not available

Establishment and employment counts come from Dun & 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 | | 6178 |
| Demographics of worker | Sex | 59.7% men |
| | | 29.2% ages 25-34 25.2% ages 35-44 21.0% ages 20-24 |
| | Length of service with employer | 29.4% more than 5 years 27.9% 1-5 years 25.9% less than 1 year |
| | Race/ethnic origin | 44.7% white non-Hispanic 29.6% Hispanic - any race 7.2% black not-Hispanic |
| Characteristics of injury/illness | Days away from work | 49.8% 1-5 days 31.3% 6-30 days 19.0% 31 or more days |
| | Nature of injury/illness | 36.3% sprains/strains 18.0% "all other" natures 10.8% bruises/contusions |
| | Part of body affected | 27.1% arms/wrists/hands/fingers 20.4% legs/knees/feet/toes 20.4% back |
| | Source of injury/illness | 19.6% containers 18.3% floors/ground surfaces 17.4% worker motion/position 12.5% machinery 12.4% "all other" sources |
| | Event or exposure | 19.4% overexertion 13.9% fall on same level 11.6% "all other" events/exposure 10.4% struck by object |

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 203

| Federal Data Only | I | II | III | IV | V | VI | VII | VIII | IX | X | Total |
|----------------------------|----------|-----------|------------|-----------|----------|-----------|------------|-------------|-----------|----------|--------------|
| Total Inspections | 4 | 11 | 4 | 6 | 9 | 14 | 1 | 2 | 0 | 3 | 52 |
| Safety | 2 | 6 | 2 | 3 | 7 | 8 | 1 | 0 | 0 | 2 | 31 |
| Health | 2 | 5 | 2 | 3 | 2 | 6 | 0 | 0 | 0 | 1 | 21 |
| Inspections by Type | | | | | | | | | | | |
| Unprogrammed | 3 | 5 | 1 | 5 | 8 | 7 | 1 | 0 | 0 | 1 | 31 |
| Accidents | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| Complaints | 2 | 2 | 0 | 1 | 6 | 3 | 1 | 0 | 0 | 1 | 16 |
| Referrals | 0 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 6 |
| Monitoring | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Variance | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Follow-Up | 1 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 5 |
| Unprog. Related | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Programmed | 1 | 6 | 3 | 1 | 1 | 7 | 0 | 0 | 0 | 2 | 21 |
| Planned | 1 | 6 | 3 | 1 | 1 | 7 | 0 | 0 | 0 | 2 | 21 |
| Prog. Related | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Source: IMIS Database

Top 10 Violations Cited

| Standard | #Cited | #Insp | Description |
|-----------|--------|-------|--|
| 1910.147 | 24 | 12 | The Control of Hazardous Energy, Lockout/Tagout |
| 1910.219 | 16 | 6 | Mechanical Power – Transmission Apparatus |
| 1910.303 | 16 | 10 | Electrical Systems Design, General Requirements |
| 1910.95 | 15 | 4 | Occupational Noise Exposure |
| 1910.305 | 15 | 8 | Electrical, Wiring Methods, Components & Equipment |
| 1910.1200 | 15 | 5 | Hazard Communication |
| 1910.23 | 14 | 7 | Guarding Floor & Wall Openings & Holes |
| 1910.212 | 11 | 9 | Machines, General Requirements |
| 1910.178 | 9 | 6 | Powered Industrial Trucks |
| 1910.253 | 8 | 6 | Oxygen-Fuel Gas Welding & Cutting |

Source: IMIS Database – FY 2003 (Federal Only)

Average Number of Employees per Establishment: 93

Percent small establishments: 47.3 %

Some Potential Hazards and Their Sources

| Hazard | Source |
|--|---|
| Struck by falling objects | Docks – Heavy boxes falling from lift trucks. |
| Caught in point of operation | Conveyors |
| Slip, trip and falls | Water from floating System |
| Struck by flying objects | Box staple machines |
| Contact with toxic or noxious substances | CO released from lift trucks |
| Noise | Conveyors and other machinery |

2001 BLS Industry Data for Industry Group 203 – PRESERVED FRUITS AND VEGETABLES

All Reported Cases 3830

| Nature of Illness or Injury | Number | % Total |
|------------------------------------|---------------|----------------|
| Sprains, Strains | 1285 | 33.55 |
| Fractures | 337 | 8.80 |
| Cuts, Punctures | 298 | 7.78 |
| Bruises | 467 | 12.19 |
| Heat Burns | 109 | 2.85 |
| Chemical Burns | 89 | 2.32 |
| Amputations | 92 | 2.40 |
| Carpal Tunnel | 97 | 2.53 |
| Tendonitis | 31 | 0.81 |
| Mult Trauma Total | 134 | 3.50 |
| Mult Trauma with Fracture | 29 | 0.76 |
| Mult Trauma with Sprain | 60 | 1.57 |
| Back Pain Total | 173 | 4.52 |
| Back Pain Hurt Back Only | 77 | 2.01 |
| All Other | 718 | 18.75 |

| Part of Body Affected | Number | % Total |
|------------------------------|---------------|----------------|
| Head Total | 289 | 7.55 |
| Eyes | 126 | 3.29 |
| Neck | 54 | 1.41 |
| Trunk Total | 1105 | 28.85 |
| Trunk Back | 699 | 18.25 |
| Trunk Shoulder | 188 | 4.91 |
| Upper Extremities Total | 1141 | 29.79 |
| Upper Extremities Finger | 451 | 11.78 |
| Upper Extremities Hand | 210 | 5.48 |
| Upper Extremities Wrist | 217 | 5.67 |
| Lower Extremities Total | 849 | 22.17 |
| Lower Extremities Knee | 298 | 7.78 |
| Lower Extremities Foot Toe | 196 | 5.12 |
| Body Systems | 19 | 0.50 |
| Multiple Body Parts | 366 | 9.56 |
| All Other Body Parts | 0 | 0.00 |

| Source of Injury or Illness | Number | % Total |
|------------------------------------|---------------|----------------|
| Chem and Chem Products | 163 | 4.26 |
| Containers | 632 | 16.50 |
| Furniture and Fixtures | 27 | 0.70 |
| Machinery | 517 | 13.50 |
| Parts and Materials | 251 | 6.55 |
| Worker Motion | 717 | 18.72 |
| Floors Walkways | 769 | 20.08 |
| Handtools | 83 | 2.17 |
| Vehicle | 202 | 5.27 |

| | | |
|---|---------------|----------------|
| Health Care Patient | 0 | 0.00 |
| All Other Sources | 468 | 12.22 |
| Sex | Number | % Total |
| Men | 2253 | 58.83 |
| Women | 1572 | 41.04 |
| Sex Not Reported | 0 | 0.00 |
| Age | Number | % Total |
| Under 14 | 0 | 0.00 |
| 14 to 15 | 0 | 0.00 |
| 16 to 19 | 44 | 1.15 |
| 20 to 24 | 292 | 7.62 |
| 25 to 34 | 759 | 19.82 |
| 35 to 44 | 1171 | 30.57 |
| 45 to 54 | 1008 | 26.32 |
| 55 to 64 | 446 | 11.64 |
| 65 and Over | 105 | 2.74 |
| Not Reported | 0 | 0.00 |
| Race | Number | % Total |
| White Non Hispanic | 1662 | 43.39 |
| Black Non Hispanic | 242 | 6.32 |
| Hispanic | 1480 | 38.64 |
| Asian or Pacific Islander | 60 | 1.57 |
| American Indian | 9 | 0.23 |
| Race Not Reported | 376 | 9.82 |
| Length of Service | Number | % Total |
| Less than 3 Months | 543 | 14.18 |
| 3 to 11 Months | 555 | 14.49 |
| 1 to 5 years | 1083 | 28.28 |
| More than 5 Years | 1473 | 38.46 |
| Service Not Reported | 176 | 4.60 |
| Days away from work | Number | % Total |
| 1 Day | 526 | 13.73 |
| 2 Days | 513 | 13.39 |
| 3 to 5 Days | 683 | 17.83 |
| 6 to 10 Days | 542 | 14.15 |
| 11 to 20 Days | 453 | 11.83 |
| 21 to 30 Days | 337 | 8.80 |
| 31 Days or More | 775 | 20.23 |
| Median Days Away | 7 | N/A |
| Event/Exposure Leading to Injury | Number | % Total |
| Total Contact with Objects | 1130 | 29.50 |
| Struck by Object | 454 | 11.85 |
| Struck Against Object | 219 | 5.72 |
| Caught in Object | 348 | 9.09 |
| Fall to Lower Level | 205 | 5.35 |
| Fall on Same Level | 629 | 16.42 |
| Slips or Trips | 106 | 2.77 |

| | | |
|-------------------------------|-----|-------|
| Overexertion Total | 566 | 14.78 |
| Overexertion in Lifting | 292 | 7.62 |
| Repetitive Motion | 217 | 5.67 |
| Exposure to Harmful Substance | 305 | 7.96 |
| Transportation Accidents | 144 | 3.76 |
| Fires and Explosions | 0 | 0.00 |

| Event/Exposure Leading to Injury | Number | % Total |
|---|---------------|----------------|
| Total Assaults – Violent Acts | 20 | 0.52 |
| Assaults by Person | 10 | 0.26 |
| All Other Assaults | 10 | 0.26 |
| All Other Events | 507 | 13.24 |

Photo Credit:

Beau Ellis, Takoma Park, MD.