The California Commission on Health and Safety and Workers' Compensation

Background Report on California Occupational Safety and Health Programs

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Introduction: OSH Act and OSHA

The Occupational Safety and Health (OSH) Act of 1970 created the Occupational Safety and Health Administration (OSHA) to help employers and employees reduce injuries, illnesses and deaths on the job in the United States. OSHA provides national leadership in occupational safety and health.

When employees stay whole and healthy, businesses also benefit. They experience lower workers' compensation insurance costs, reduced medical expenditures, decreased payout for return-to-work (RTW) programs, fewer faulty products, and lower costs for job accommodations for injured workers. There are also indirect benefits such as increased productivity, lower costs for training replacement workers and decreased costs for overtime.[1]

The agency seeks to find and share the most effective ways to help prevent worker fatalities and prevent workplace injuries and illnesses. It is authorized to help employers and employees reduce injuries, illnesses, and deaths on the job through the following strategies:

- Strong, fair, and effective enforcement;
- Outreach, education, and compliance assistance; and
- Partnerships, alliances and other cooperative and voluntary programs.

A wide range of programs and activities are used to implement these strategies, including:

- Mandatory job safety and health standards and enforcement through worksite inspections, and occasionally, by imposing citations, penalties, or both;
- Establishment of rights and responsibilities for employers and employees to achieve better safety and health conditions;
- Support for the development of innovative ways of dealing with workplace hazards;
- Establishment of requirements for injury and illness recordkeeping by employers, and for employer monitoring of certain occupational illnesses;
- Establishment of training programs to increase the competence of occupational safety and health personnel;
- Provision of technical and compliance assistance and training and education to help employers reduce worker accidents and injuries;
- Working in partnership with states that operate their own occupational safety and health programs (states like California, as discussed below); and
- Other supports and promotions.

Since the creation of OSHA, workplace fatalities have been cut by more than 60 percent and occupational injury and illness rates have declined 40 percent. At the same time, U.S.

[1] All About OSHA, 2006, p. 4. http://www.osha.gov/Publications/all_about_OSHA.pdf

employment has more than doubled.[2] However, significant hazards and unsafe conditions still exist in U.S. workplaces – measured by over 5,000 annual workplace deaths from workplace injuries, and by as many as 50,000 annual deaths from illnesses in which workplace exposures are a contributing factor. Nearly 4.3 million people suffer non-fatal workplace injuries and illnesses, and the cost of occupational injuries and illnesses totals more than $156 billion.[3]

Recordkeeping of injuries, illnesses and deaths provide statistics to benchmark conditions for improvement, as well as provide red flags for outlier behaviors/characteristics that need further investigation or redress. The data may point to a need for an enforcement action or the data may help create a case for tighter or looser standards. Accordingly, this background report presents two types of data—data describing California injuries, illnesses and fatalities, and data describing California inspections, violations and penalties. The challenge is to find bridges between these two realms of data in order to examine effectiveness and causation measures.

The OSH Act of 1970 also authorized states to administer their own occupational safety and health programs as long as those programs are "at least as effective" as federal OSHA.[4] State Plan states are referred to as OSHA 18b States, after section 18b of the 1970 Act. Twenty-six states and territories operate State Plans, 22 of which cover both private and public sector employment while three states and one territory cover public sector employment only. State plans are approved and monitored by federal OSHA, which funds up to 50 percent of an approved plan's operating costs.[5] California is one of those 21 states and one territory that have State-Plan programs covering private and public sectors. The Department of Industrial Relations (DIR), through its Division of Safety and Health (DOSH), has administered the Cal/OSHA program since 1973 when California's plan was submitted to federal OSHA for approval. The following discussion is a presentation of data and a description of safety and health programs in California.

[2] All About OSHA, 2006. pp.4-6. http://www.osha.gov/Publications/all_about_OSHA.pdf
[3] Ibid., p. 5.
[4] OSH Act, section 18 subsection C, part 2. "Any state which, at any time, desires to assume responsibility for development and enforcement therein of occupational safety and health standards relating to any occupational safety and health issue with respect to which a federal standard has been promulgated under section 6 shall submit a state plan for the development of such standards and their enforcement."
[5] Some DOSH responsibilities are mandated by state law only and do not receive federal funding, such as certifying employers, consultants, and trainers in asbestos-related work; issuing permits for operation of elevators, amusement rides and aerial passenger tramways (e.g., ski lifts); and inspecting mines, tanks and boilers.

Preliminary Observations

Injury and Illness and Fatality Observations:

- California public sector total-case rates for non-fatal occupational injuries are much higher than those for the private sector over the past recent years[6];

- Among the Western region states, California's 2005 private-industry non-fatal occupational injury and illness rate is the lowest at 4.7, followed by Arizona;

- California ranked #12 in the nation for occupational fatalities with 465 fatalities at a rate of 2.7 per 100,000 workers;

- Business and financial operations have a much larger figure for median days away from work than some higher risk occupational groups, such as construction and extraction, yet the injury and illness rate is much higher for construction;

- Transportation and material moving, and construction and extraction have a much higher number of occupational fatalities than business and financial operations;

- Male workers experience an overwhelming percentage of occupational fatalities;

- White, non-Hispanic workers lead in occupational fatalities, followed closely by Hispanic or Latino workers;

- Transportation incidents make up over one third of the causal events or exposures for occupational fatalities, followed by assaults and violent acts;

- The most frequently injured body part is the back, accounting for 20.7 percent of non-fatal cases in the private sector, and 14 percent and 18.9 percent in state government and local government, respectively;

Enforcement Observations:

- On average, there is more than one violation per inspection at any establishment; in 2006, the average was 2.2 violations per inspection;

- In 2006, 8,342 inspections were conducted;

- In 2006, 62% of inspections resulted in cited violations;

- The most cited violation in 2006 was failure to have a Injury and Illness Prevention Program (IIPP) – the first step in ensuring a safer workplace;

[6] This may be due to lack of reporting in the private sector.

- Construction continues to receive the largest proportion of inspections, in line with DOSH's stated Performance Goal 1.1;

- About one-third of the violations in construction and manufacturing industries are considered serious violations, compared to almost one-quarter of the violations considered serious in all industries;

- In 2006, total high hazard enforcement program inspections for 2006 were 4,128 with 9,098 high hazard violations;[7]

- The difference between penalties assessed and penalties collected is large for EEEC cases;

Consultation Observations:

- 2,604 onsite visits affected 4,578 employers in which 11,102 hazards were identified;

- In 2006, the average hazard per on-site consultation was 4.3;

- Of the hazards identified at onsite consultations, 26.1% were considered serious;

- In 2006, 926 High Hazard onsite consultations were conducted in which 5,308 violations were observed and corrected;

[7] 448 high hazard inspections together with Agricultural ASHIP and Construction CSHIP project inspections.

Overview of Research on Effectiveness of Safety and Health Programs in 18b and non-18b States

There is relatively little comparative work being done to compare the effectiveness of different state programs and to explain the differences in incidence rates of injuries and illnesses in different states. There is no ongoing national study that could be identified and no clinical research to examine the effectiveness of enforcement, consultations and other activities with the goal to change (improve) safety and health behavior at the workplace. Identified comparisons rely on coverage measures such the total enforcement funding needed to complete inspections at each and every worksite or employer – expressed as the number of *years* needed to complete such inspections – or, comparisons of the number of inspectors per 10,000 businesses, comparing the number of inspections, or comparing average penalties assessed per inspection. Finding studies using current data is more challenging. New methodologies have been developed to measure deterrent effects of enforcement programs, namely by Gregory Huber at Yale University.[8] However, the data used are from the 1990s.

In one study from 2001 by Shane Stephens of the Bureau of Labor Statistics (BLS), injury and illness incidence rates for 18b State Plan states and non-18b State Plan states were observed for the period of 1995-1999. In both types of states, the public sector had a higher injury and illness incidence rate. Injury cases were also more severe in State Plan states. For the private sector, the incidence rate of different types of events causing injury varied between both types of states. For the public sector, there was a trend for high incidence rates for non-18b States, but the severity was greater for 18b States.[9] The results of this study pointed to important areas to improve upon, but there is currently no plan to update this study.[10]

Some studies on the effectiveness of regulation and regulatory agencies have looked at OSHA penalty inspections and changed (safer) behavior by employers, managers and employees, but individual state characteristics were not separated out in the research methodology.[11] Some of these studies, such as one by John Mendeloff of the RAND Corporation and University of Pittsburgh have found that there are injury-prevention effects from inspections in some industries and at workplaces with fewer than 250 workers, especially at non-union workplaces with fewer than a hundred workers, for example. Inspections have been found in some cases to affect a much wider range of

[8] One recent study looks at the period of time during "reinvention" changes at federal OSHA and effects in OSHA States and State-Plan states. The Craft of Bureaucratic Neutrality by Gregory A. Huber, 2007.
[9] Higher public sector rates may be due to lack of reporting in the private sector.
[10] Conversation with author of study, Shane Stephens, Economist, BLS, Office of Safety, Health and Working Conditions. "Injuries and Illnesses in the Public Sector," 2001.
[11] For example, see "Inside the Black Box: How do OSHA Inspections Lead to Reductions in Workplace Injuries?" by John Mendeloff and Wayne B. Gray in Law & Policy 27 (2), pp.219-237, 2005. Data from 1992-1998 were used. "We also examined four-digit SIC controls and state dummy variables in preliminary runs, but they had little effect on the coefficients of the policy variables." And, "We limited our standard-specific analyses to federal OSHA states because several large State Plan states use their own distinct systems for coding standards…It would have taken substantial effort to "cross-walk" the different state systems to identify the parallel standards." (p. 226)

prevented injuries than only those standards-related injuries; however, inspections did not necessarily prevent future injuries arising out of the same standard violation.[12] While inspection findings of prevented injuries have not compared different state effects in one study, differences between federal OSHA states and State Plan states have been tested and no statistically significant differences between them have been found.[13] However, it would be difficult to generalize from one or two studies that there are no potential differences between individual federal OSHA states and individual State Plan states, such as that of California.

Other research we identified is more qualitative. For example, the Occupational Safety and Health State Plan Association (OSHPA) publishes an annual report called Grassroots Worker Protection which describes specific 18b State activities related to the following: workplace emergency preparedness and security; strategic plans; customer service; enforcement; enhanced enforcement; state initiatives; state innovations; and state incentives such as recognition programs.[14] States feature highlights from their programs in the above categories, lending the ability to compare initiatives and progress among non-18b States.

In a recent 2006 California State Auditor report entitled, "San Francisco – Oakland Bay Bridge Worker Safety," the subtitle of the report included the following recommendation: "Better State Oversight is Needed to Ensure That Injuries Are Reported Properly and That Safety Issues Are Addressed." The report found DOSH lacking in procedures to ensure the reasonable accuracy of employers' annual injury reports, and the report found a lack of follow up on three of six complaints of hazardous conditions on the specific Bay Bridge project. More specific recommendations for DOSH to identify underreporting of workplace injuries and to help ensure the reasonable accuracy of annual injury reports include:

- Identifying employers whose injury rate is much lower than the rate of similar employers.
- Comparing the injuries reported in the WCIS to annual injury reports to identify discrepancies.
- Sending out a confidential survey to a sample of workers throughout the State to identify injuries not included in employers' annual injury reports and workplace conditions that could lead to the underreporting of injuries.[15]

[12] Ibid., "Inside the Black Box." An exception was personal protective equipment (PPE).
[13] Ibid., p. 230.
[14] "Grassroots Workplace Protection," Occupational Safety and Health State Plan Association, 2005. Link found on OSHA's own website. http://www.osha.gov/dcsp/osp/oshspa/grass2005.pdf
[15] "San Francisco – Oakland Bay Bridge Worker Safety: Better State Oversight is Needed to Ensure That Injuries Are Reported Properly and That Safety Issues Are Addressed." California State Auditor, February 2006 (2005-119). http://www.bsa.ca.gov/pdfs/sr2007/2005-119.pdf

Description of Data Sources

Bureau of Labor Statistics Annual Survey of Occupational Injuries and Illnesses

To estimate the number of occupational injuries and illnesses in the United States, BLS established a nationwide annual survey of employers' occupational injuries and illnesses. The state-level statistics on non-fatal and fatal occupational injuries and illnesses are derived from this survey.

Non-Fatal Injuries and Illnesses

The BLS Annual Survey develops frequency counts and incidence rates by industry and also profiles worker and case characteristics of non-fatal workplace injuries and illnesses that result in lost work time. Each year, BLS collects employer reports from about 173,800 randomly selected private-industry establishments.

Fatal Injuries and Illnesses

The estimates of fatal injuries are compiled through the Census of Fatal Occupational Injuries (CFOI), which is part of the BLS occupational safety and health statistics program. CFOI uses diverse state and federal data sources to identify, verify, and profile fatal work injuries.

OSHA surveys and data

OSHA Occupational Injury and Illness Survey

Federal OSHA administers the annual "Occupational Injury and Illness Survey." OSHA utilizes this collection of employer-specific injury and illness data to improve its ability to identify and target agency interventions to those employers who have serious workplace problems.

For this survey, OSHA collects data from 80,000 non-construction establishments and from up to 15,000 construction establishments.

OSHA Integrated Management Information System Data

OSHA's Integrated Management Information System (IMIS) provides management information to the agency regarding inspections and consultations. OSHA makes available to the public information and statistics about inspections by industry group by state, as well as inspections conducted within a particular establishment by state. For more information: http://www.osha.gov/oshstats/index.html

California data

The Commission on Health and Safety and Workers' Compensation (CHSWC) Annual Report of 2006[16] details fatal and non-fatal incidence rates for the public and private sectors in California, using data from Department of Industrial Relations's (DIR's) Division of Labor Statistics and Research (DLSR). Data include both magnitude and percentage figures. (As the above Stephens study suggested, California's state and local government sector, like the 18b and non-18 b States' averages for public sector, demonstrates incidence rate trends much higher than the private sector.) In general, California is trending a little higher than the national average occupational injury and illness incidence rates for private sector cases, but the good news is that the rates are falling for both California and the national average. California is below the national average for occupational fatalities.[17]

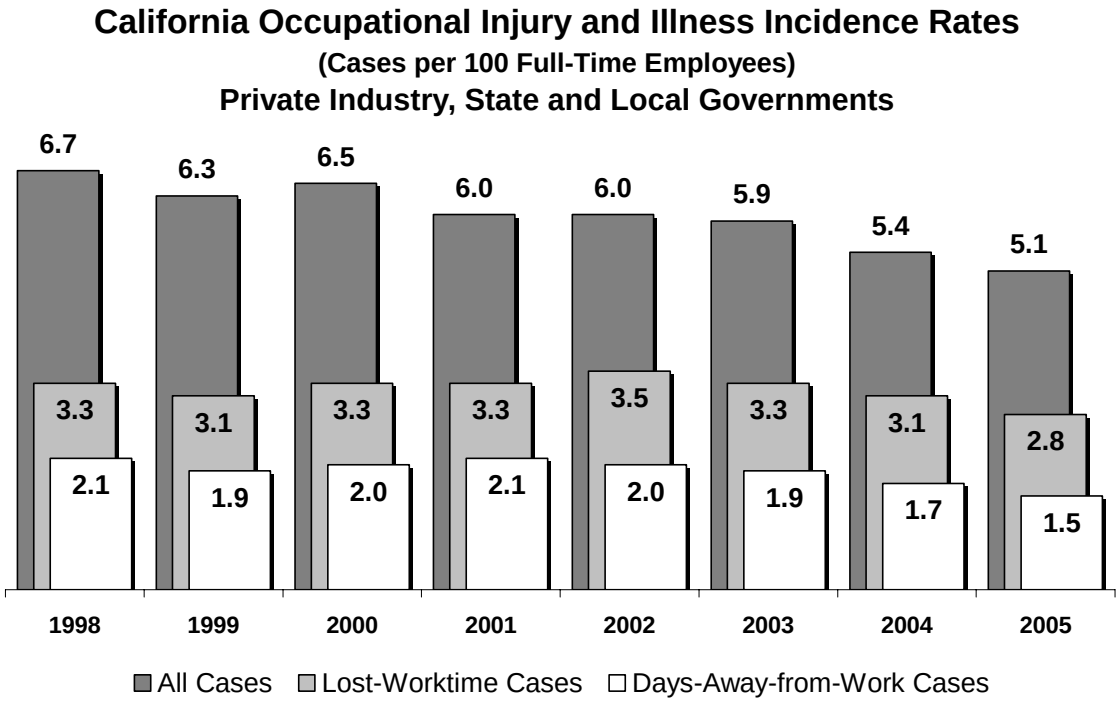
In addition, DOSH reports statistics through DLSR at http://www.dir.ca.gov/dlsr/, as well as its High Hazard Enforcement Program. Labor Code Section 6309 also states that DOSH "shall annually compile and release on its website data pertaining to complaints received and citations issued."

[16] CHSWC, 2006 Annual Report, pp. 105-116.
[17] "Deaths on the Job. A national and state-by-state profile." AFL-CIO, April 2007, using 2005 data from US DOL, Bureau of Labor Statistics. http://www.aflcio.org/issues/safety/memorial/upload/doj_2007.pdf

The following section is a summary of occupation injury and illness and fatality data:

Profile of Occupational Injuries and Illnesses

From 1998 to 2005, incidence rates for all cases and days-away-from-work cases in California declined. Between 1998 and 2002, the incidence rates for lost-work-time cases remained relatively the same, but have started to decline slightly since 2002 as suggested by the chart below.

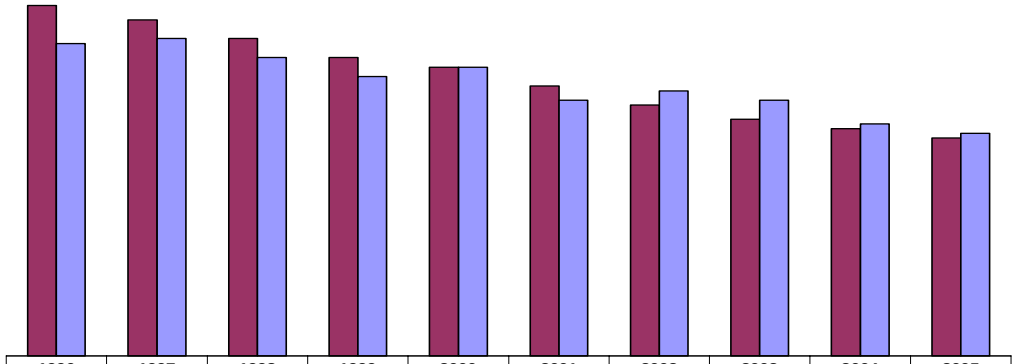


Source: DIR Division of Labor Statistics and Research

<u>United States and California Incidence Rates: A Comparison</u>

Both the United States and California have experienced a decrease in the occupational injury and illness incidence rates from 1996 through 2005. During that time, the United States incidence rate dropped by 37.8 percent, while the California rate declined by 28.8 percent. Since 2002, the incidence rate in California has been above the national average, as indicated by the chart below. (See definition for Recordable Cases in Appendix B.)

USA and California
Injury and Illness Incidence Rate per 100 Full-Time Workers
Private Industry - Total Recordable Cases

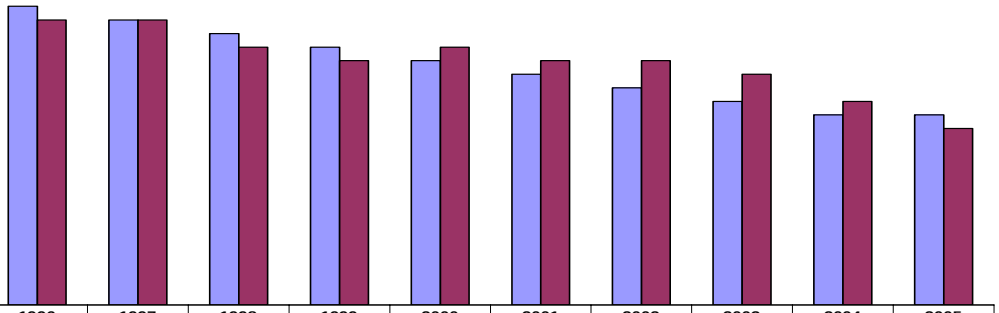


	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
USA	7.4	7.1	6.7	6.3	6.1	5.7	5.3	5.0	4.8	4.6
California	6.6	6.7	6.3	5.9	6.1	5.4	5.6	5.4	4.9	4.7

Source: US Department of Labor, Bureau of Labor Statistics

The incidence rate of occupational injury and illness days-away-from-work cases has also declined in the United States and California from 1996 through 2005. During that period of time, the rate for the United States decreased by 36.4 percent, while the California rate dropped by 38.1 percent. For the first time since 1999, California was below the national average for cases with days away from work as indicated in chart below. [See specific definition of Days Away from work, days of Restricted work activity or job Transfer (DART) in Appendix C.]

USA and California
Injury and Illness Incidence Rate per 100 Full-Time Workers
Private Industry - Cases with Days Away from Work

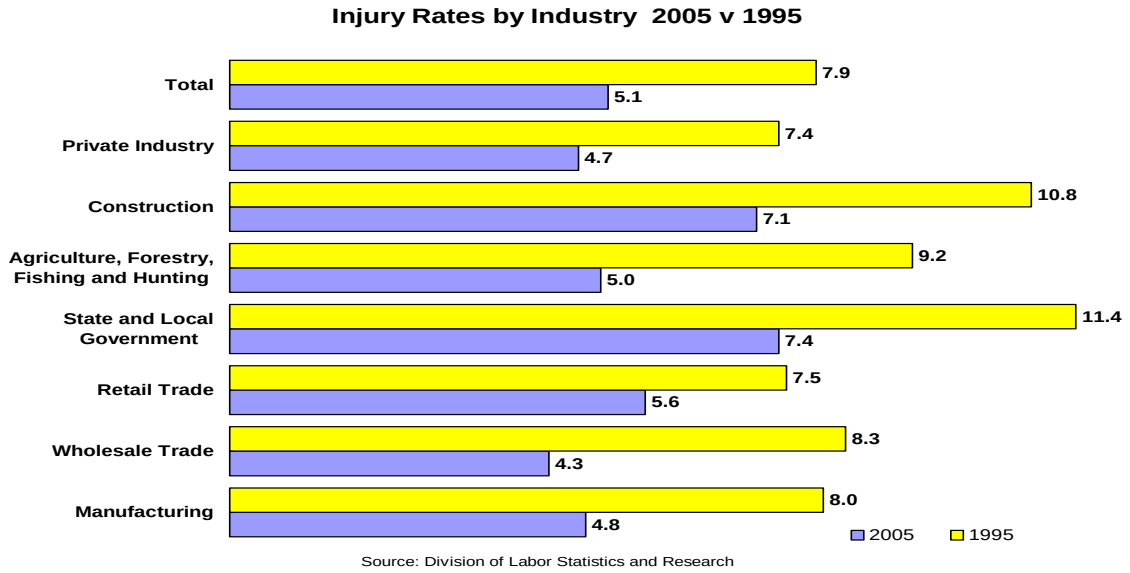


	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
USA	2.2	2.1	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.4
California	2.1	2.1	1.9	1.8	1.9	1.8	1.8	1.7	1.5	1.3

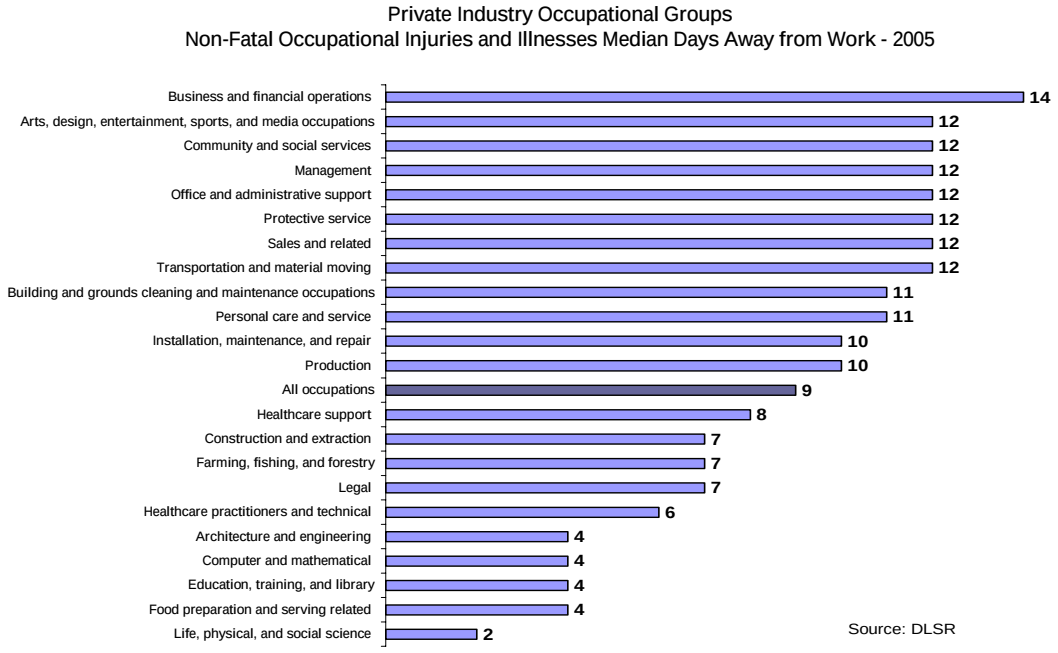
Source: US Department of Labor, Bureau of Labor Statistics

Characteristics of California Occupational Injuries and Illnesses

The following chart compares incidence rates by industry in 1995 with those in 2005. Not only have the overall California occupational injury and illness incidence rates declined, but also have the incidence rates in major industries declined. Of note is the trend for State and Local Government injury rates to remain the highest category, despite significant decline.



The following chart compares the median days away from work for private industry occupations. Business and financial occupations have the greatest median days away from work with 14 median days away from work.



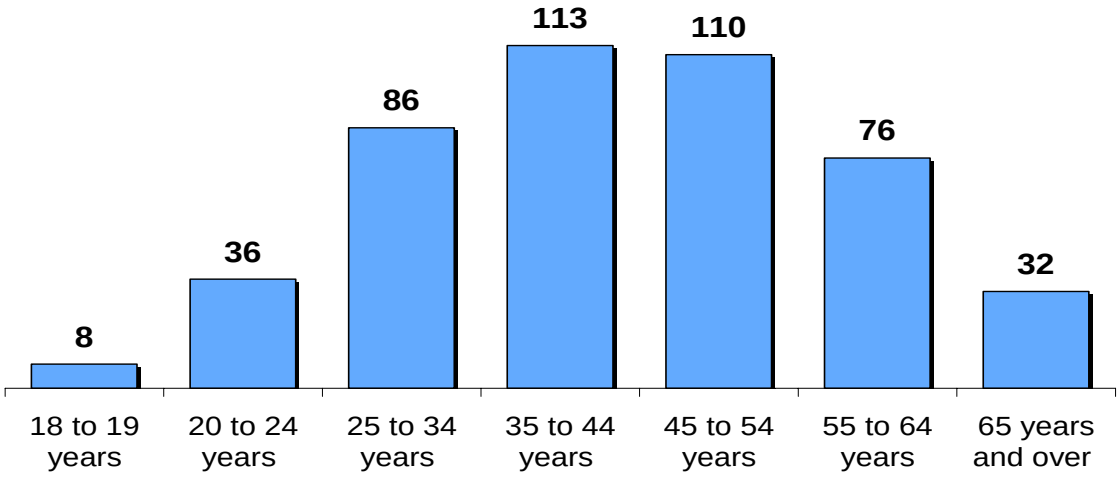
Profile of Occupational Fatalities

The following chart compares the number of fatalities for various occupations. The transportation and material moving occupation had the greatest number of fatalities in 2005, followed by the construction and extraction occupation.

Characteristics of California Fatal Occupational Injuries and Illnesses

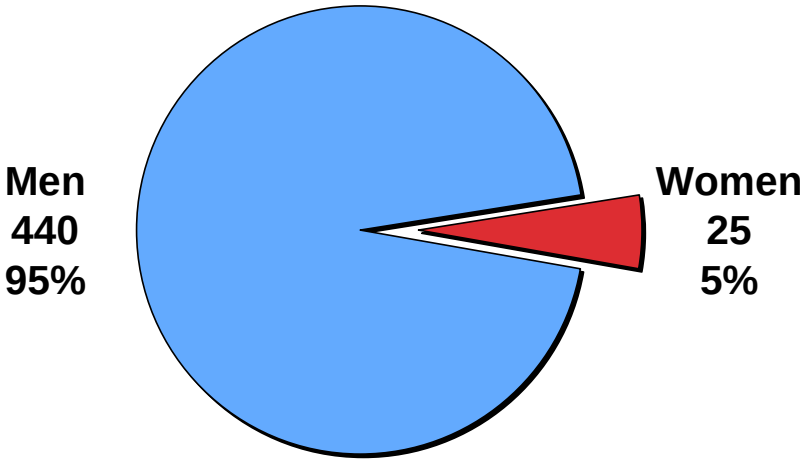
The following charts illustrate various characteristics of fatal occupational injuries and illnesses in 2005 in California. As would be expected, workers in the prime working ages experience the greatest fatalities. Male workers experience an overwhelming percentage of fatalities. White, non-Hispanic workers lead in occupational fatalities, followed closely by Hispanic or Latino workers. Transportation incidents make up over one third of the causal events or exposures for fatalities, followed by assaults and violent acts.

California Fatal Occupational Injuries and Illnesses by Age of Worker - 2005



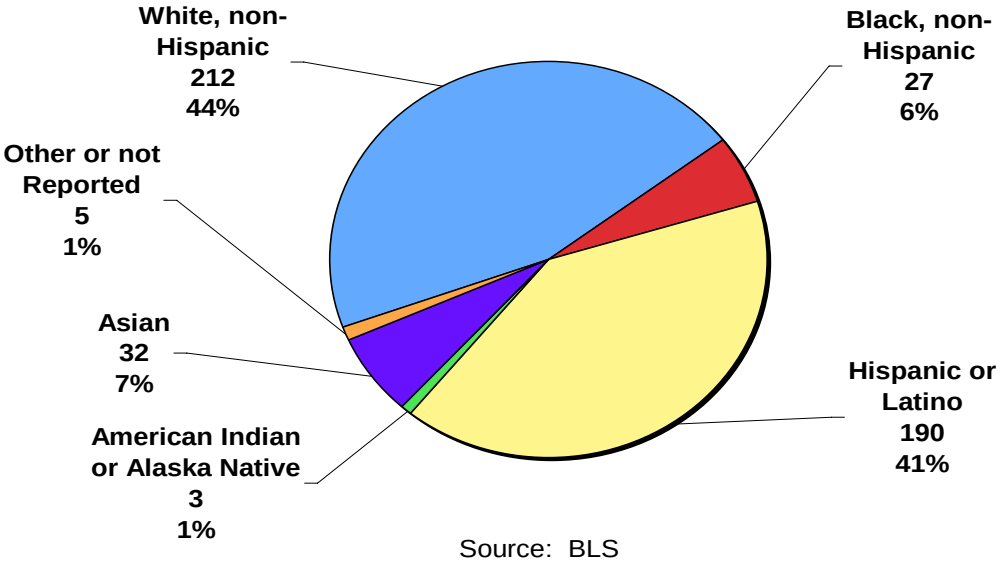
Source: BLS

California Fatal Occupational Injuries and Illnesses by Gender - 2005



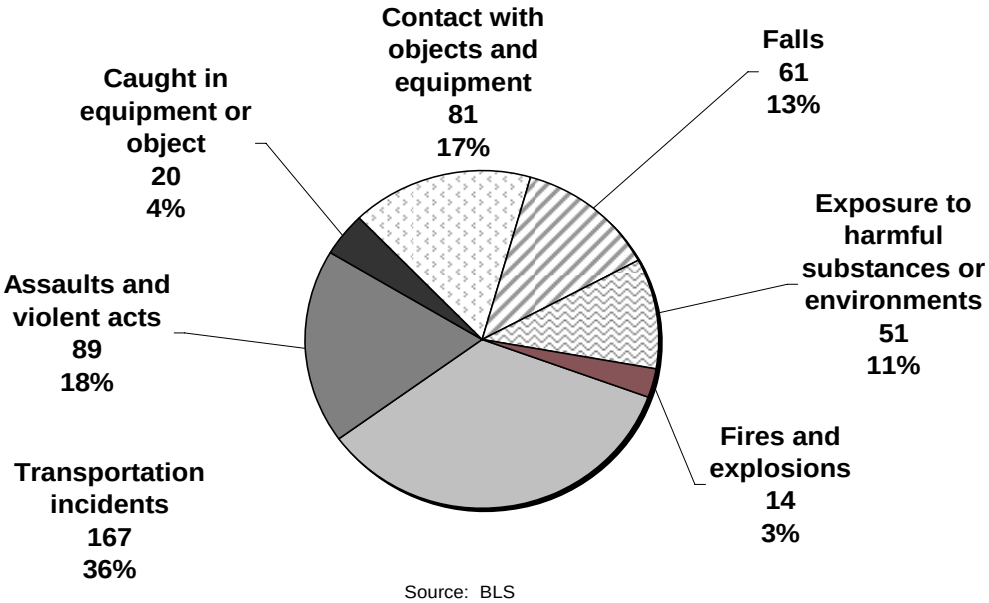
Source: BLS

California Fatal Occupational Injuries and Illnesses by Race or Ethnic Origin - 2005



Source: BLS

California Fatal Occupational Injuries and Illnesses by Event or Exposure - 2005



Source: BLS

Selected Occupational Injury and Illness Statistics: California and the Nation

Data for the following analyses, except where noted, were derived from the DIR, DLSR, the United States Department of Labor (DOL) BLS, and from the California Workers' Compensation Institute (CWCI).[18]

Incidence Rates

- California's most recent work injury and illness statistics for 2005 indicate an injury and illness rate of 4.7 cases per 100 full-time employees in the private sector in 2005. This is a 50 percent decline from the 1990 peak level of 9.4 and an estimated 4 percent decrease from the previous year's figures.

- The trend in California mirrors a national trend. DOL figures for private employers show that from 1990 to 2005, the work injury and illness rate across the United States fell from 8.8 to 4.6 cases per 100 employees in the private sector. The reduction in the number of incidences of job injuries is likely due to various factors including a greater emphasis on job safety, the improving economy since the early 1990s, and the shift from manufacturing toward service jobs.

- Among the Western region states, Alaska, Arizona, California, Hawaii, Nevada, Oregon and Washington, California's 2005 private-industry rate of 4.7 for non-occupational injuries and illnesses is the lowest.[19] The state that had the second-lowest incidence rate was Arizona.

Duration

- Days-away-from-work cases, including those that result in days away from work with or without a job transfer or restriction, dropped from 2.2 to 1.4 cases per 100 full-time employees from 1996 to 2005 in the private sector. This also mirrors the national trend with the number of days-away-from-work cases falling from 2.1 to 1.3 cases in the national private sector with a similar decline as that of California.

- In the "2004 State Report Cards for Workers' Compensation," published by the Work Loss Data Institute, the Institute reported that the median days away from work in California is 11 days, compared with the national average of 7 days.[20]

Industry Data

- In 2005, injury and illness incidence rates varied greatly between private industries ranging from 2.8 injuries/illnesses per 100 full-time workers in the financial activities sector to 7.1 in construction. California's private industry rates for total cases were higher than the national rates in every major industry division, except for manufacturing (6.3 and 4.8) and for natural resources and mining (5.1

[18] To be published in forthcoming CHSWC 2007 Annual Report.
[19] The comparisons of industry rates have not been adjusted for industry mix within each state.
[20] http://www.odg-disability.com/pr_repsrc.htm

and 4.9). The California and national incidence rates were the same for education and health services (5.5) and leisure and hospitality (4.7).

- The private industry total-case rate for non-fatal injuries decreased between 2004 and 2005 from 4.9 to 4.7, and the rate for the public sector (state and local government) decreased from 8.9 in 2004 to 7.4 in 2005.

- Over the past decade (1996-2005), the number of fatal injuries declined by about 17.7 percent, from 565 to 465[21]. From 2004 to 2005, the number of fatal injuries decreased by 0.4 percent. The highest number of fatal injuries (122) was in trade, transportation and utilities, followed by construction (103).

- In private industry, the top ten occupations with the most non-fatal injuries and illnesses are: laborers and freight, stock, and material movers; truck drivers, light or delivery services; carpenters; truck drivers, heavy and tractor-trailer; retail sales persons; construction laborers; farm workers and laborers, crop, nursery, and greenhouse; stock clerks and order fillers, security guards; nursing aides, orderlies, and attendants.

- In California state government, the top ten occupations with the most non-fatal injuries and illnesses are: correctional officers and jailers; psychiatric technicians; police and sheriff's patrol officers; office clerks, general; registered nurses; janitors and cleaners, except maids and housekeeping cleaners; psychiatric aides; food servers, non-restaurant; operating engineers and other construction equipment operators; first-line supervisors/managers of correctional officers.

- In the local government, the top ten occupations with the most non-fatal injuries and illnesses are: police and sheriff's patrol officers; janitors and cleaners except maids and house-keeping cleaners; teacher assistants; elementary school teachers, except special education; maintenance and repair workers, general; fire fighters; probation officers and correctional treatment specialists; landscaping and grounds-keeping workers; bus drivers, transit and inter-city; office clerks, general.

- Truck drivers, heavy and tractor-trailer (46); farm workers and laborers, crop, nursery, and greenhouse (28); construction laborers (27); police officers (17); and first-line supervisors/managers of construction trades and extraction workers (17) were the occupations with the most number of fatal injuries in 2005. Transportation and material-moving occupations and construction and extraction occupations accounted for nearly half (47%) of the fatal injuries in 2005. Transportation incidents were the number one cause of fatal injuries accounting for about 36 percent of fatal injuries in 2005.

- Assaults and violent acts accounted for about 19 percent of fatal injuries in 2005, and are a major cause of fatalities among: sales and related occupations (25);

21 Totals for fatal injuries include federal government data.

protective-service occupations (15); transportation and material-moving occupations (12); construction and extraction occupations (6) and production occupations (6).

Establishment Size and Type

- The lowest rate for the total recordable non-fatal cases in 2005 was experienced by the smallest employers. Employers with 1 to 10 employees and 11 to 49 employees had incidence rates of 1.8 and 4.0 cases, respectively, per 100 full-time employees. There was a 6 percent increase in incidence rates for employers with 1 to 10 employees from 2004 to 2005. Employers with 11 to 49 employees experienced no change in incidence rates compared to 2004.[22]

- Establishments with 250 to 999 and 1000 or more employees reported the highest rate of 6.0 and 6.1 cases per 100 full-time employees in 2005.

Types of Injuries

- Some types of work injuries have declined since 1996 in the private sector, while others have increased. The number of sprains and strains continued to decline from 1996, but these injuries remain by far the most common type of work injury accounting for about 35.6 percent of days-away-from-work cases in the private sector. Cuts, lacerations, bruises, contusions, heat burns, carpal tunnel syndrome, tendonitis, chemical burns, and amputations have decreased from 1996-2005, with the biggest decrease, 54 percent, seen both in carpal tunnel syndrome and tendonitis. From 1996 to 2005, the only injury categories that experienced an increase are multiple injuries.

- In the private sector, contact with objects and equipment was the leading cause of days away-from-work injuries, cited in about 25.6 percent of days-away-from-work cases. Overexertion was the second common cause of injury, accounting for about 16.8 percent of injuries.

- In California state government, the two main causes of injury were contact with objects and equipment and overexertion, accounting for about 14.5 and 11.7 percent of days-away-from-work cases, respectively, in 2005.

- In local government, the number one cause of injury was contact with objects and equipment, accounting for 14.4 percent of days-away-from-work cases in 2005.

- The most frequently injured body part is the back, accounting for about 14 percent of the cases in state government and about 18.9 percent cases in local government. In the private sector, back injuries account for 20.7 percent of non-fatal cases.

[22] Differences in incidence rates for various establishment sizes may be partially accounted for by underreporting.

Demographics

- Over the period from 1996 to 2005 in California, the number of days-away-from-work cases for women decreased by about 32 percent. Days-away-from-work cases for men decreased by about 30 percent.

- Between 1996 and 2005, the age groups in private industry (16 to 19, 20 to 24, 25 to 34, 35 to 44, and 45 to 54) experienced a decline. The biggest decline (57 percent) occurred among 16 to 19 year-old workers. The age groups 55 to 64 experienced a 12.5 percent, and 65 and over 93 percent increase in their numbers of days away from work.

- In 2005, out of 465 fatalities, approximately 95 percent were male and 5 percent were female. Age group categories –25 to 34 years, 45 to 54 years, 55 to 64 – experienced an increase in fatal injuries between 2004 and 2005, and age group 18 to 19 years, 20 to 24 years, 35 to 44 years – experienced a decrease in fatal injuries. Age group 65 years and over experienced no change from 2004 to 2005. The biggest increase (6.8 percent) was seen in the 45 to 54 years age group and the decrease in 18 to 19 year age group was 58 percent.

- The highest number of fatalities in 2005 by race or ethnic origin categories was experienced by "White, non-Hispanic" followed by "Hispanic or Latino," accounting for 45 percent and 41 percent of the fatalities, respectively. From 2004 to 2005, fatal injuries increased in most groups. For the "Black, non-Hispanic" the increase 8 percent (from 25 to 27 cases); for the "Hispanic or Latino," it was 1 percent (from 188 to 190); and for the "White, non-Hispanic" group, it was 0.5 percent (from 211 to 212); in addition, there was a decrease by 3 percent for the "Asian" category (from 33 to 32 cases).

- The AFL-CIO publishes an Annual "Death on the Job" report on workplace fatalities and injuries and illnesses in which state and national averages are tabulated from BLS data.[23] It is the only organization we could identify that has collected and prepared such comparative data. For 2005, the report found that California ranked #12 in the nation with 465 fatalities (using the BLS number[24]) at a rate of 2.7 per 100,000 workers. The report also published that California had 503,700 (private industry) injuries and illnesses (using the BLS number[25]) at a rate of 4.7 compared with the national rate of 4.6 per 100 workers.[26]

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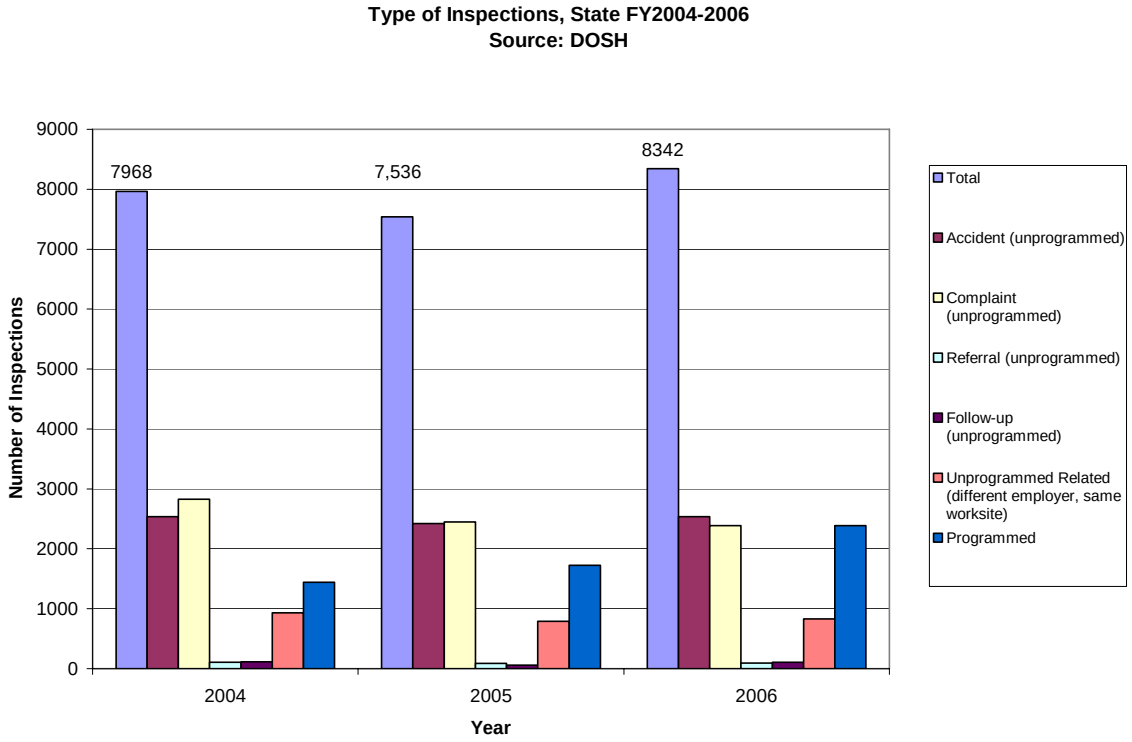
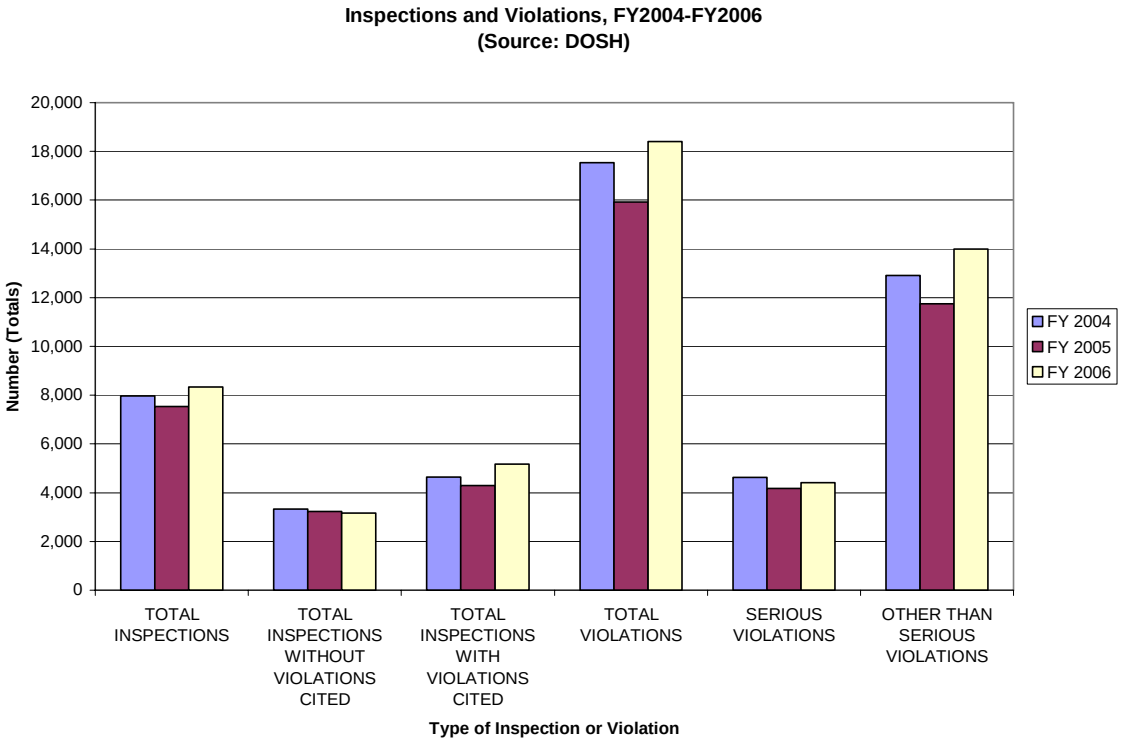
[23] BLS data available at http://data.bls.gov/GQT/servlet/InitialPage
[24] BLS, Table 1, Fatal occupational injuries in California, 2005. http://www.bls.gov/iif/oshwc/cfoi/tgs/2005/iiffi06.htm
[25] DIR, DSLR, Table 7., Numbers of nonfatal occupational injuries and illnesses by industry and case types, 2005, page 1. http://www.dir.ca.gov/dlsr/Injuries/2005/2005Table7-NumbersOfNOII.pdf
[26] "Deaths on the Job. A national and state-by-state profile." AFL-CIO, April 2007. http://www.aflcio.org/issues/safety/memorial/upload/doj_2007.pdf. Rates were determined using the BLS number for California employees equal to 15,234,188.

Profile of DOSH On-Site Inspections and Violations Cited

The trends in types of inspections have varied in the past few years, with Accidents and Follow-up Inspections being consistently predominant. However, starting in FY2006, Programmed Inspections started to reach similar levels as Accidents and Complaints.

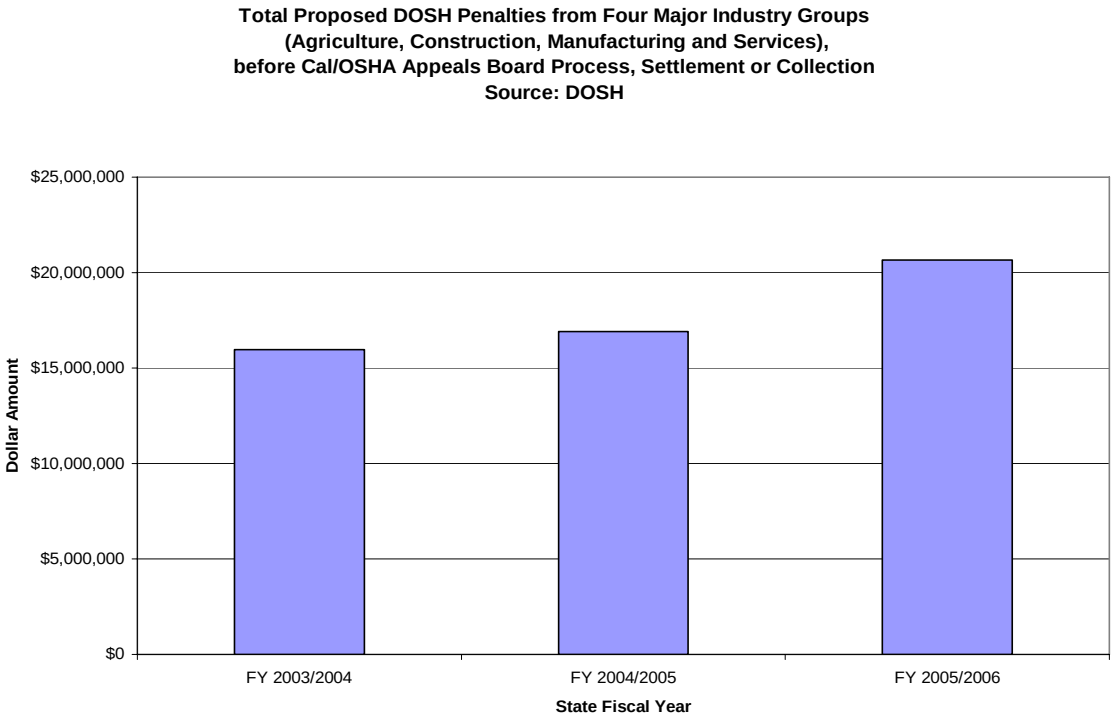


Total Inspections have fluctuated in the past three years from 7,968 in FY 2004 to 8,342 in FY2006. The number of violations is greater than inspections due to the fact that most inspections where violations are found yield more than one violation. Violations are further broken down into serious and other-than-serious. In FY 2006, 62.10% of inspections resulted in violations cited. The breakdown by type is shown in the chart below.

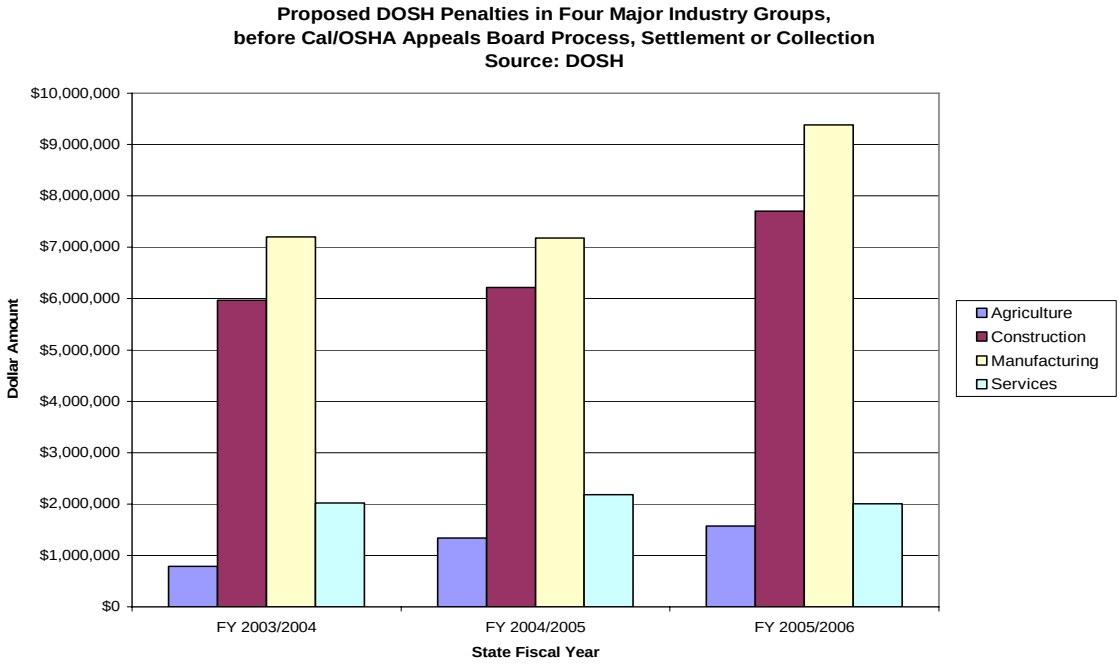


Of the 8,342 workplace safety and health inspections conducted in FY 2006, 2,870 (35%) were in construction and 5,472 (65%) were in non-construction.

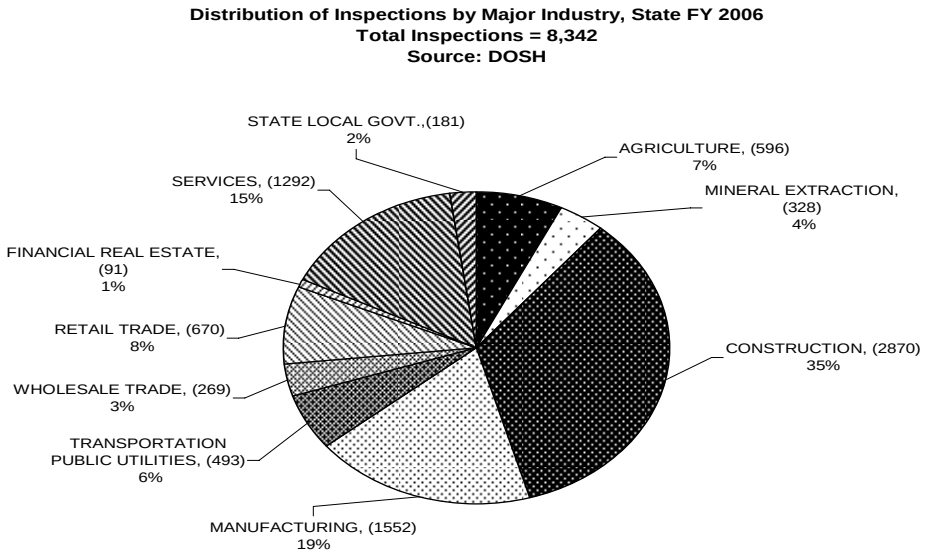
As reported in an August 2007 CHSWC Commissioners' Meeting by the Acting Chief of DOSH Len Welsh, the discrepancy between penalties assessed and penalties collected is large. In fact, according to Mr. Welsh, the term assessed should be replaced with "proposed," since an employer can appeal the penalty to the Cal/OSHA Appeals Board. Mr. Welsh indicated that employers "usually" appeal, and for the past seven years employers have been appealing penalties at a rate higher than that of the entire history of the program. The Chart below describes an increase in proposed penalties in major industry groups.



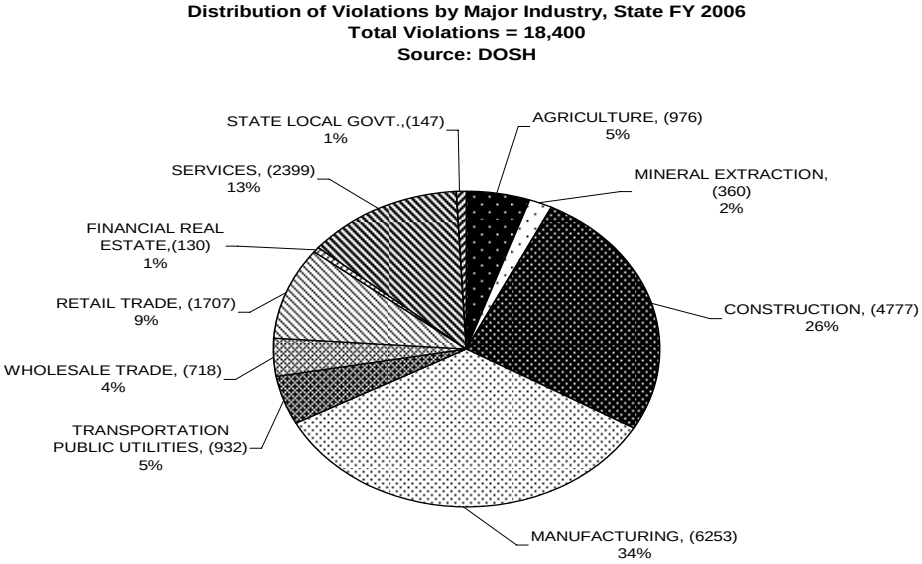
The amount of proposed penalties reflects the relative distribution of violations, as indicated in the pie charts following these bar charts, with Manufacturing and Construction leading the dollar amounts.



A more thorough analysis of the effectiveness of penalties could trace the history of the proposed penalties in any given year and the ultimate disposition of the case by settlement or by the Cal/OSHA Appeals Board. A further step could include the injury and illness rates of the penalized employer several years hence to test behavioral effects.



Despite the fact that the greatest percentage of inspections were in construction, the greatest percentage of violations were found to be in manufacturing, as is shown in the chart below. Further, of those violations that were considered serious, both construction and manufacturing industries experienced a similar rate of 30% serious violations (not shown in chart).



The AFL-CIO Annual "Death on the Job" report states that California ranked Number #1 in FY 2006 for the average penalty assessed for serious violations, $5,398, compared to the national average of $881. The report also calculates a resource figure using the BLS number of California establishments of 1,221,898 divided by the number of inspectors to illustrate the difficulty of actually inspecting each workplace.[27] (Besides presenting data on each state, selected occupations, and demographic groups, this report raises many issues about occupational injury and illness government statistics and undercounting which leads, as stated by the author, to understating the problem of safety and health on the job.[28])

Inspections and penalties may lead to behavioral changes at the workplace in some cases, but there is limited research examining the incentives and effects (including cost savings) of adopting safe practices in California. Further, guidance about the appropriate emphasis on enforcement, consultation and the various partnership programs is more often than not a resource issue since all programs try to achieve behavioral change in different ways to different effects. Ideally, measurement of the deterrent effect of different enforcement programs could direct stakeholders on issues of costs and resources.[29]

Economic and Employment Enforcement Coalition (EEEC)[30]

According to the DIR website, "For decades California has had some of the strongest labor and workforce safety laws in the country. To help enforce these labor laws and regulations, the Triple "E" Coalition (Economic and Employment Enforcement Coalition-EEEC) was created (in 2005) as a multi-agency enforcement program consisting of investigators from the Division of Labor Standards Enforcement, Division of Occupational Safety and Health, Employment Development Department, Contractor's State License Board and US Department of Labor. The primary emphasis of the EEEC is to combine the enforcement. The EEEC is a partnership of state and federal agencies, each expert in their own field, collaborating to:

- Educate business owners and employees on federal and state labor, employment, and licensing laws;
- Conduct vigorous and targeted enforcement against labor law violators;
- Help level the playing field and restore the competitive advantage to law-abiding businesses and their employees."[31]

[27] "Deaths on the Job. A national and state-by-state profile." AFL-CIO, April 2007. "Length of time it would take for (state-plan) OSHA to inspect each California workplace once: 139 years." http://www.aflcio.org/issues/safety/memorial/upload/doj_2007.pdf

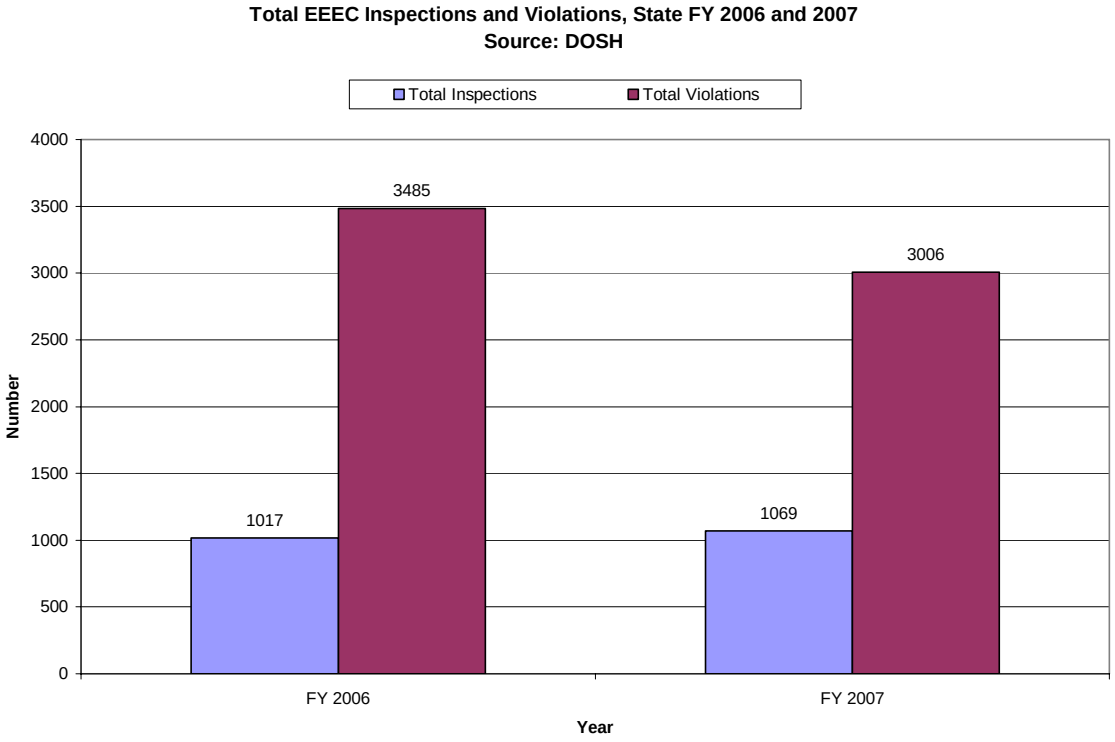
[28] Also mentioned is a recent Michigan study that makes similar findings about BLS data: Rosenman, K.D et. al. "How Much Work-Related Injury and Illness is Missed by the Current National Surveillance System?", Journal of Occupational and Environmental Medicine, Vol. 48, No. 4, pp 357-367, April 2006.

[29] Huber, Gregory A. The Craft of Bureaucratic Neutrality, 2007, p. 185.

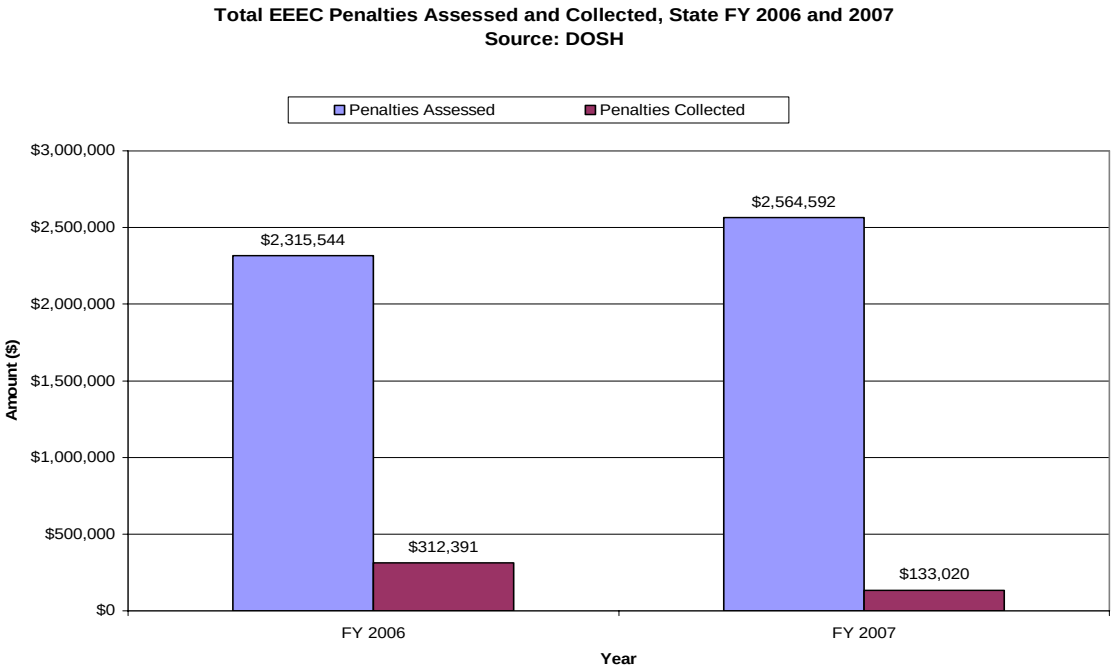
[30] For more information about the EEEC, visit any of these agency links: http://www.dir.ca.gov/EEEC/EEEC.html, or http://www.edd.ca.gov/eddeeec.htm, or http://www.labor.ca.gov/eeec.htm

[31] http://www.dir.ca.gov/EEEC/EEEC.html

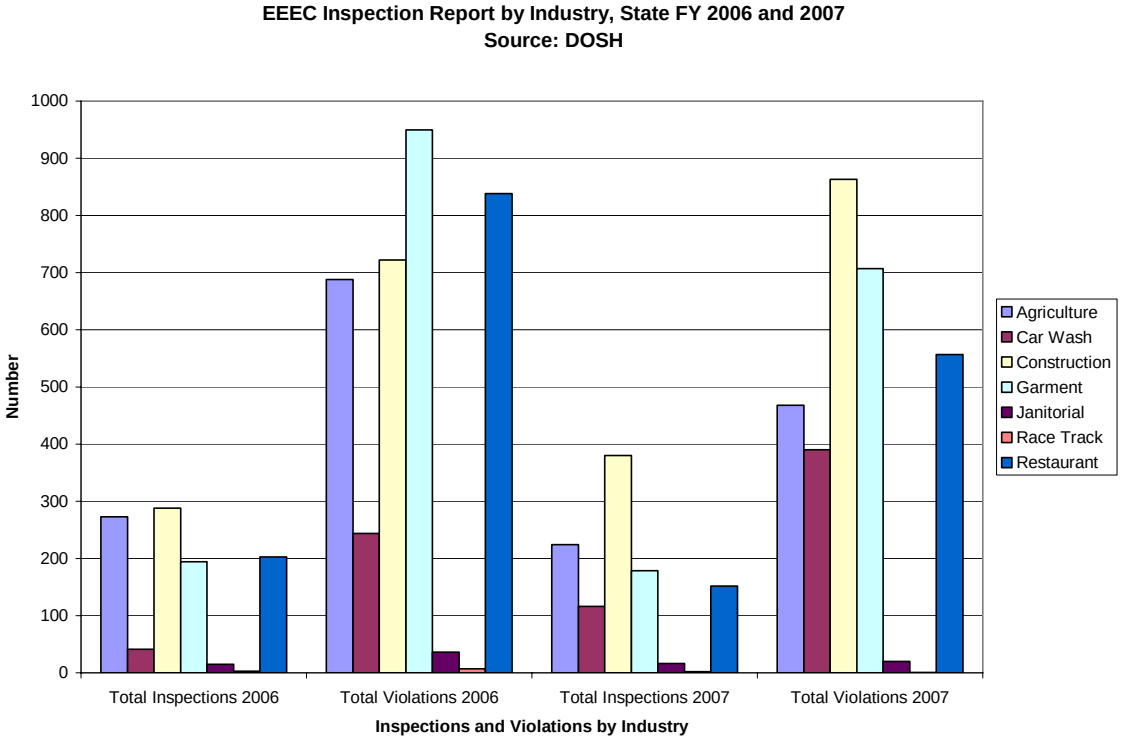
Given the newness of the EEEC, there are only two years of data. Total EEEC inspections rose from FY2006 (July to June) to FY 2007, from 1017 to 1069, respectively. However, the number of violations was lower in FY2007, 3006 versus 3485. The penalties given were $2.31 million in FY2006 and $2.56 million in FY2007, but only $312,391 (13.5%) was collected in FY2006, and $133,020 (5.1%) in FY2007. The following two charts illustrate the comparisons.[32]

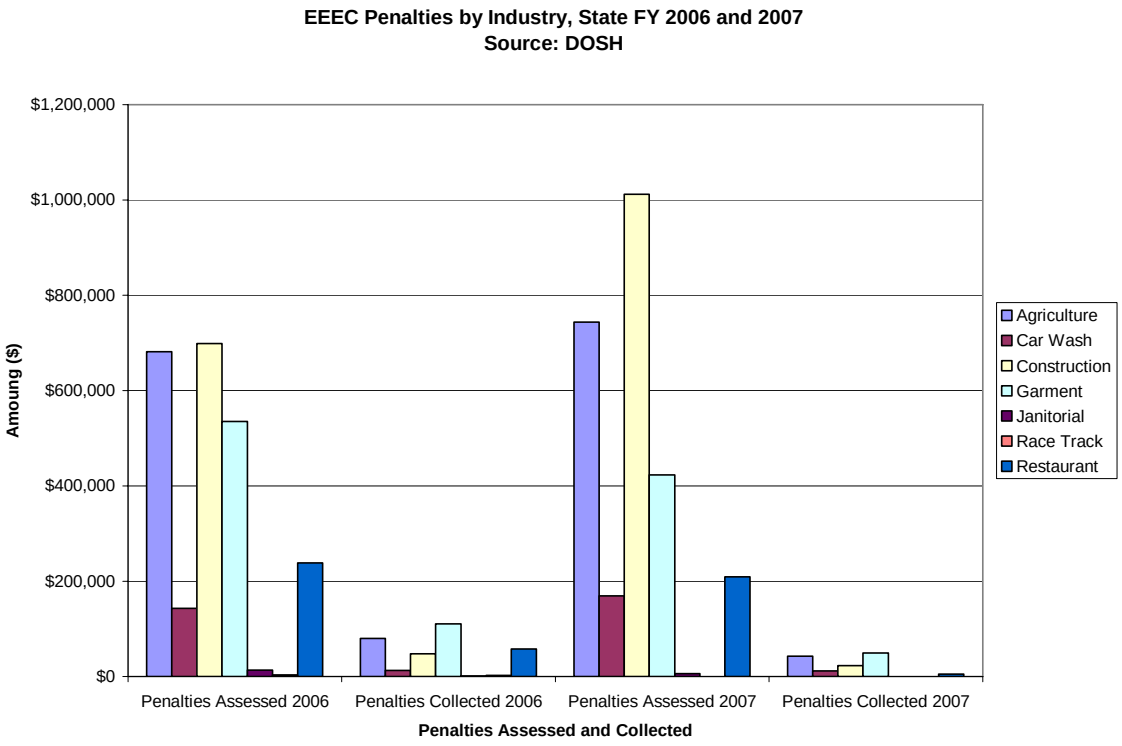


[32] Data provided by DOSH; these totals reflect only DOSH citations and penalties, other types of Labor code citations and penalties resulting from the enforcement action are independently accounted for by the respected agency or unit.



The charts below describe EEEC inspections and violations by industry, along with the penalties assessed and collected. Construction, Garment and Restaurant industries have led in violations in the past two years. Construction and Agriculture have led in inspections. Agriculture and Construction industries have led in penalties assessed.





Description of the California Safety and Health Program

The California Division of Occupational Safety and Health (DOSH) protects workers from safety hazards through its Cal/OSHA program and provides consultative assistance to employers.

In addition to ensuring safe and healthful working conditions, DOSH has two major units devoted to conducting inspections to protect the public from safety hazards. The Elevator, Ride and Tramway Unit conducts public safety inspections of elevators, amusement rides -- both portable and permanent -- and aerial passenger tramways, or ski lifts. The Pressure Vessel Unit conducts public safety inspections of boilers, air and liquid storage tanks, and other types of pressure vessels.

Cal/OSHA Consultation Services provides workplace safety and health assistance to employers and workers through on-site assistance and special emphasis programs, and publishes a wide variety of educational materials on workplace safety and health topics.

The Occupational Safety and Health Standards Board (OSHSB), a seven-member body appointed by the governor, adopts safety and health standards, providing the basis for Cal/OSHA enforcement.

The Occupational Safety and Health Appeals Board (Cal/OSH App) is a three-member, quasi-judicial body appointed by the governor and confirmed by the Senate that handles employer appeals of citations issued by Cal/OSHA.

The Commission on Health and Safety and Workers' Compensation (CHSWC) is a joint labor-management body created by the workers' compensation reform legislation of 1993 and charged with examining the health and safety and workers' compensation systems in California and recommending administrative or legislative modifications to improve their operation.[33]

DOSH Planning/Performance Strategy

At the beginning of each Federal Fiscal Year on October 1st, State-Plan States like California are required by federal law to submit an **Annual Performance Plan** for Federal OSHA's approval. The Annual Performance Plan sets forth performance goals for selected programmatic activities that are designed to move the State closer to achieving its Five-Year Strategic Goals.

In 2004, the DOSH selected three "strategic" (major planning) goals for its Five-Year Strategic Plan, covering the federal fiscal years (FFY) 2004 through 2008. The FY2004-2008 Strategic Plan for the CAL/OSHA program incorporates the successful performance initiatives included in the previous five-year plan and introduces new performance initiatives that focus on priority safety and health issues in California.

CAL/OSHA's Five-Year Strategic Goals are as follows:

Strategic Goal 1. **Improve workplace safety and health** for all workers through direct intervention methods that result in fewer hazards, reduced exposures, and fewer injuries, illnesses, and fatalities.

Strategic Goal 2. **Promote workplace cultures** that increase employer and employee awareness of, commitment to, and involvement in safety and health.

Strategic Goal 3. **Secure public confidence** and maximize Cal/OSHA's capabilities by improving the effectiveness and efficiency of CAL/OSHA's programs and services.

For the FFY 2007 Annual Performance Plan, which began October 1, 2006, and ends on September 30, 2007, eight (8) performance goals were selected for the Cal/OSHA program, including: construction safety and health; high hazard employers; food processing; heat illness prevention; and partnerships—all with enforcement and consultation elements. Educational outreach to Hispanic employee groups, partnership

[33] Descriptions from DIR website, http://www.dir.ca.gov/occupational_safety.html

programs, citation lapse times, and quality assurance round out the performance goals for FFY 2007.[34]

Cal/OSHA believes that enforcement is only one tool for decreasing worker injuries, illnesses and fatalities. Federal OSHA and Cal/OSHA both use incentives promoting voluntary compliance, as well as employer/employee education and training to identify and abate worksite hazards.[35] To encourage voluntary compliance with occupational safety and health regulations and to help lower workplace injury and illness rates, Cal/OSHA's Consultation Service offers assistance to employers and employees. Consultation services include on-site visits and compliance assistance, injury and illness prevention program improvement, educational seminars and publications. The Consultation Service does not share information with the Enforcement Unit, and Consultation Service visits do not result in citations or penalties. However, any identified hazards must be corrected. In addition, contact with the Consultation Service does not preclude a separate enforcement inspection based on factors other than contact with the Consultation Service.

Inspection Procedures[36]

Inspections are conducted by Cal/OSHA safety engineers and industrial hygienists from district offices throughout California. Complaint, referral and accident inspections, as well as scheduled (programmed) compliance inspections, are conducted by the district offices. (See Appendix A for a detailed description of the types of inspections conducted by the Enforcement Unit.)

The first step is for Cal/OSHA Enforcement Unit staff to obtain permission to conduct an inspection from a management-level representative of the employer.[37] As stated elsewhere, a Cal/OSHA inspection is based on one or more criteria—imminent hazard; fatality or catastrophe; investigation of serious injury or exposure; formal complaints or scheduled inspection, usually of businesses in industries with higher-than-average potential risk.

If there are no imminent hazards, inspectors conduct an opening conference with the employer representative jointly with a bargaining unit representative of the employees, explaining the reason for and scope of the inspection. Enforcement inspectors then review employer's permits and registration, documentation of workers' compensation coverage, occupational safety and health records, and the written Injury and Illness Prevention Program (IIPP) and any other required programs.

[34] DOSH Memorandum, "FFY 2007 Annual Cal/OSHA Performance Plan, 11/7/06. http://www.dir.ca.gov/dosh/2007AnnualPerformancePlan.pdf
[35] DIR, DOSH, User's Guide to Cal/OSHA, June 2005, p. 4. http://www.dir.ca.gov/dosh/dosh_publications/osha_userguide.pdf
[36] DIR, DOSH, User's Guide to Cal/OSHA, June 2005, p. 7-8.
[37] If permission to enter is refused, Cal/OSHA will obtain an inspection warrant.

The Cal/OSHA inspector informs the employer of inspection walkaround procedures, consisting of employee interviews, photographs of the work site, testing and taking of environmental samples.[38] If hazards observed are violations of Title 8 safety orders, citations will be issued.

At the inspection's conclusion, the Cal/OSHA inspector holds a Closing or Exit Conference with the employer to discuss any alleged violations of standards observed and any requirements of abatement. The possibility of a follow-up inspection is also discussed, as is the right to contest any citation or penalty. Upon receipt of a citation, the employer may appeal to the Occupational Safety and Health Cal/OSHA Appeals Board.

Reporting

Occupational Injury and Illness Reporting

Occupational injury and illness information is the responsibility of the BLS within the United States DOL and the DLSR within the California DIR. Occupational injuries and illnesses are recorded and reported by California employers through several national surveys administered by the DOL with the assistance of the DIR.

OSHA Reporting and Recording Requirements

The United States OSH Act of 1970 (OSH Act) requires covered employers to prepare and maintain records of occupational injuries and illnesses. It provides specific recording and reporting requirements that comprise the framework for the nationwide occupational safety and health recording system. OSHA in the DOL administers the OSH Act recordkeeping system.

Although there are exemptions for some employers on recording of injuries, all California employers must report injuries to the DLSR. Every employer must also report any serious occupational injuries, illnesses or deaths to California OSHA within the DIR. The data assist employers, employees and compliance officers in analyzing the safety and health environment at the employer's establishment and are the source of information for the BLS "Annual Survey of Occupational Injuries and Illnesses" and the OSHA "Occupational Injury and Illness Survey."

[38] Cal/OSHA enforcement staff request that an employee representative be contacted and invited to accompany the Cal/OSHA inspector and the employer on the inspection.

Occupational Injury and Illness Prevention Efforts

DOSH Programs - Enforcement and Consultation

Efforts to prevent occupational injury and illness in California take many forms, but all are derived from cooperative efforts between the public and private sectors. This section describes consultation and compliance programs, safety and health standards, and education and outreach designed to prevent injuries and illnesses to improve worker safety and health.

Enforcement

The DOSH Enforcement Program is responsible for enforcing California laws and regulations pertaining to workplace safety and health and for providing assistance to employers and workers about workplace safety and health issues. California is an 18b State, and standards for certain areas are not covered by federal standards; in particular, elevators, aerial passenger tramways (e.g., ski lifts), amusement rides, pressure vessels, and mine safety training are independently developed standards. The Occupational Safety and Health Standards Board promulgates these standards.[39]

The Cal/OSHA Enforcement Unit conducts inspections of California workplaces based on worker complaints, accident reports and high hazard industries. There are programmed inspections and unprogrammed inspections. (See Appendix A for a more detailed description of types of inspections.) In addition, there are high hazard enforcement inspections. Targeted inspections are considered part of the high hazard enforcement programmed inspections.

The High Hazard Inspection Program is funded out of the Targeted Inspection and Consultation Fund (Labor Code 62.7). This program is funded by assessments on those employers who have an elevated ExMod of 1.25 or more.[40] (For more information about the high hazard programs, see below section on Special Programs.)

Historically, the number of inspectors has fluctuated between 210 and 240[41] inspectors, distributed among the 22 Cal/OSHA Enforcement Unit district offices located throughout the state of California. Specialized enforcement units, such as the Mining and Tunneling Unit and the High Hazard Enforcement Unit, augment the efforts of district offices in protecting California workers from workplace hazards in high hazard industries.

Other specialized units, such as the Crane Certifier Accreditation Unit, the Asbestos Contractors' Registration Unit, the Asbestos Consultant and Site Surveillance Technician Unit, and the Asbestos Trainers Approval Unit, are responsible for enforcing regulations pertaining to crane safety and prevention of asbestos exposure.

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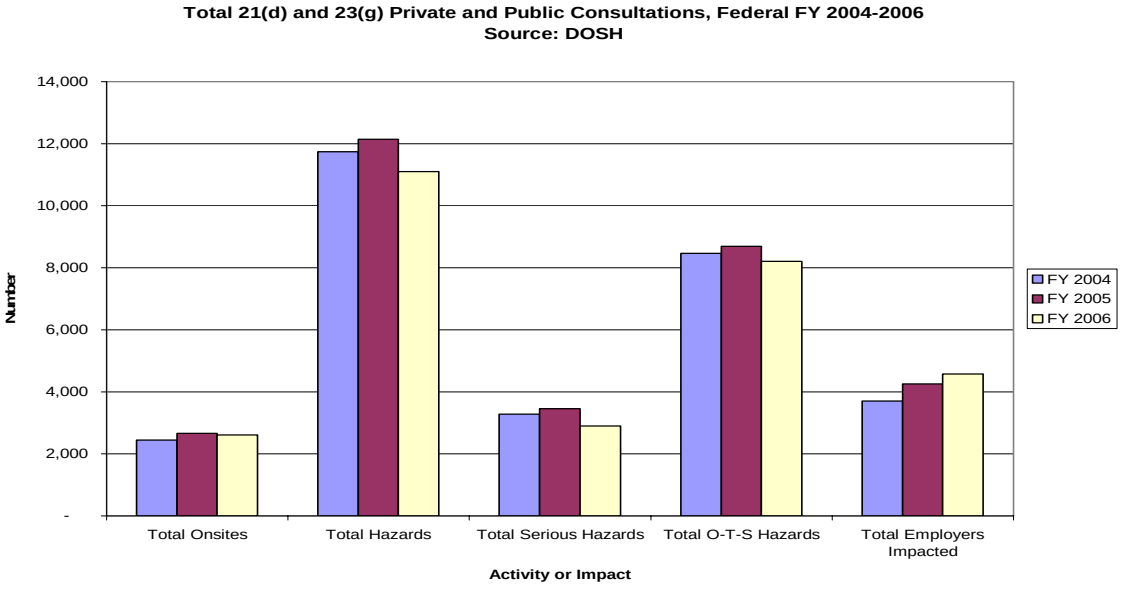
[39] OSH Standards Board website at: http://www.dir.ca.gov/OSHSB/oshsb.html
[40] Both the High Hazard enforcement program and the High Hazard consultation programs are funded by this assessment, from DOSH, 2005 High Hazard Employer Program Annual Report, January 11, 2007.
[41] Source: DOSH.

Cal/OSHA classifies the violations and proposes penalties according to formulas directed by the Director's regulations. Penalties may be collected, settled, or appealed.

Consultation Service

Cal/OSHA believes that enforcement is only one tool for decreasing worker injuries, illnesses and fatalities.[42] The Cal/OSHA Consultation Service provides assistance to employers and workers about workplace safety and health issues through on-site assistance, high hazard consultation and special emphasis programs, and the Consultation Service develops educational materials on workplace safety and health topics. Incentives are used to promote voluntary compliance, as well as employer/employee education and training to identify and abate worksite hazards. In particular, the Consultation Service offers assistance in the form of on-site visits and compliance assistance independent of enforcement activities.

There are over 100[43] (official figure not yet provided) consultant service safety engineer staff distributed among the nine area offices in California. In FY 2006, there were a total of 2,604 on-site visits, affecting 4,578 employers in which 11,102 hazards were identified.[44] While these visits do not produce citations or penalties, the hazards must be corrected. The average hazard per site has been between 4.3 and 4.8 hazards, of which between a quarter and a third are considered serious hazards.[45] The below chart describes the total private and public sector consultations and impacts for the past three federal Fiscal Years.



[42] DIR, DOSH, User's Guide to Cal/OSHA, June 2005, p. 4. http://www.dir.ca.gov/dosh/dosh_publications/osha_userguide.pdf
[43] DOSH official figure not yet provided.
[44] DIR, DOSH, 21(d) and 21(g) Consultation data, Federal FY 2004-2006.
[45] Ibid.

High Hazard Employer Program

The 1993 reforms of the California workers' compensation system required Cal/OSHA to focus its consultative and compliance resources on "employers in high hazardous industries with the highest incidence of preventable occupational injuries and illnesses and workers' compensation losses." Mandated targeted inspections and consultations were considered a first line of defense against rising workers' compensation claims.[46]

High Hazard Employer Program

The High Hazard Employer Program (HHEP) is designed to:

- Identify employers in hazardous industries with the highest incidence of preventable occupational injuries and illnesses and workers' compensation losses;
- Offer and provide consultative assistance to these employers to eliminate preventable injuries and illnesses and workers' compensation losses;
- Inspect those employers on a random basis to verify that they have made appropriate changes in their safety and health programs;
- Develop appropriate educational materials and model programs to aid employers in maintaining a safe and healthful workplace.

In 1999, the passage of Assembly Bill (AB) 1655 gave the DIR the statutory authority to levy and collect assessments from employers to support the targeted inspection and consultation programs on an ongoing annual basis.

High hazard industries are identified based on the highest incidence of preventable occupational injuries and illnesses and workers' compensation losses. A list of high hazard industries is developed by DLSR.[47] The 2006-2007 list can be found at: http://www.dir.ca.gov/dosh/HHU_List07.pdf The industries range from construction, manufacturing, transportation and warehousing to utilities and are identified by NAICS code. Employers identified in the High Hazard Industry sectors may be contacted by Consultation's outreach program for high hazard employers or they may be subject to an inspection by the High Hazard Compliance Unit.

High Hazard Consultation Program

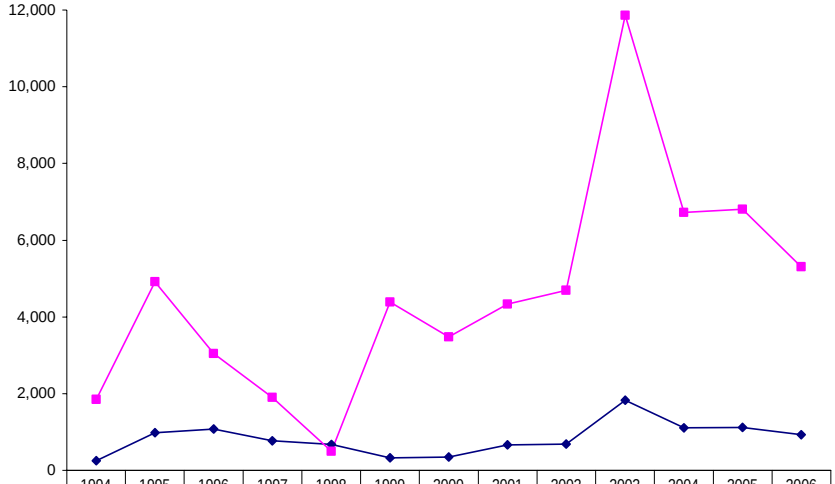
DOSH reports that in 2006, it provided on-site high hazard consultative assistance to 926 employers, as compared to 1,116 employers in 2005. During consultation with these employers, 5.308 Title 8 violations were observed and corrected as a result of the provision of consultative assistance.

Since 1994, 10,766 employers have been provided direct on-site consultative assistance, and 59,794 Title 8 violations have been observed and corrected. Of these violations, 40.0 percent were classified as "serious."

[46] DIR, DOSH, User's Guide to Cal/OSHA, June 2005, p. 3.
[47] By identifying industries in which the DART (days away from work, job transfer, or restriction) rate exceeds the average for California employers.

The following chart indicates the yearly number of consultations and violations observed and corrected during the years 1994-2006. It should be noted that for years 2002 and 2003, all Consultative Safety and Health Inspection Projects (SHIPs) were included in the High Hazard Consultation Program figures. Effective in year 2004, only Consultative Safety and Health Inspection Projects (SHIPs) with Experience Modification Rates (ExMods) of 125% and above are included in the High Hazard Consultation Program figures.

High Hazard Consultation Program Production by Year



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Number of Employers Provided High Hazard Consultative Assistance	249	978	1,080	773	680	329	348	663	688	1,824	1,112	1,116	926
Total Number of Title 8 Violations Observed and Corrected	1,848	4,912	3,045	1,898	496	4,385	3,481	4,336	4,691	11,861	6,725	6,808	5,308

Data Source: Division of Occupational Safety and Health

High Hazard Consultation efficacy is measured by comparisons of employer lost and restricted workday data. Beginning in 2001, the Log 200 was replaced with the Log 300 as the source for lost and restricted workday data. The use of the Lost Work Day Case Incidence (LWDI) rate was transitioned and replaced with the Days Away, Restricted, or Transferred (DART) rate. Additionally, High Hazard Consultation uses experience modification (ex-mod) rates to measure efficacy. In contrast to other consultancy services, information from High Hazard Consultation is shared with the High Hazard Enforcement Unit.

High Hazard Enforcement Program

The High Hazard Enforcement Program utilizes a two-part approach for targeted inspection meeting the targeting formula found in California Labor Code 6314.1. The selection of employers for targeted inspections begins with the selection of high hazard industries. Industries are first selected from injury and illness data obtained from the California Injury and Illness Survey Data, which is compiled yearly by DLSR in DIR. After industries with high injury and illness incidence rates are selected, employer

members of that industry are selected at "random" for inspection. Establishments are selected at random from sources such as the Dun & Bradstreet establishment listings or from the telephone directory and other primary data sources.

The employers selected at random for high hazard targeted enforcement inspections are next screened "on-site" by compliance personnel to determine if the employer is a high hazard member of that industry by means of an on-site review of their injury, illness and loss data and other programs required by regulations, e.g., Injury and Illness Prevention Program (IIPP). Based on the outcome of the on-site review process, a determination can be made as to whether that particular establishment is "high hazard" and should receive a comprehensive compliance inspection.[48] The "targeting" occurs in the last stage of the on-site review, and these firms do not receive the benefit of a consultation first.

HHEP also handles the complaints and accident referrals related to businesses in an industry on the DOSH List of Highest Hazard Industries.

DOSH reports that in 2006, 448 employers underwent a high hazard enforcement inspection, down from 505 employers in 2005. During these inspections in 2006, 2,633 violations were observed and cited, whereas in 2005, 2,233 violations were observed and cited.

In addition, in 2006, 593 employers underwent an inspection as part of the Agricultural Safety and Health Inspection Project (ASHIP). Of these, 4 inspections were targeted. During these inspections, 1223 violations were observed and cited.

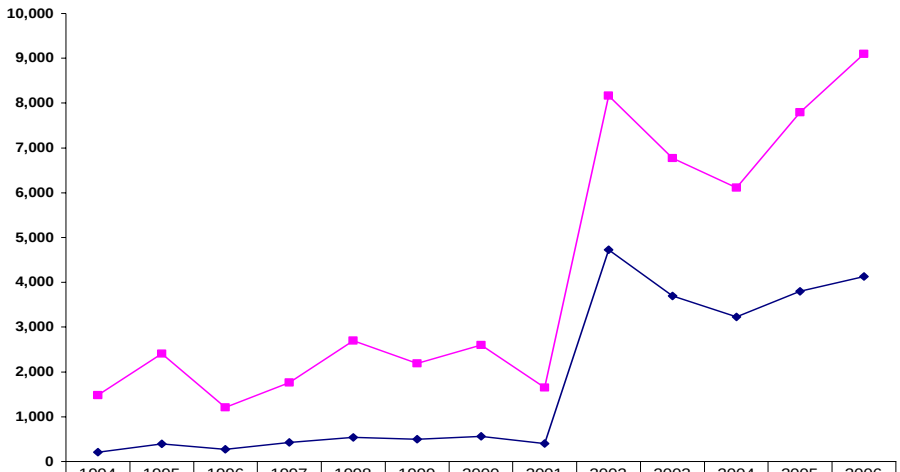
In addition, in 2006, 3134 employers underwent an inspection as part of the Construction Safety and Health Inspection Project (CSHIP). Of these, 43 inspections were also targeted. During these inspections, 5,242 violations were observed and cited.

Since 1994, 23,383 employers have undergone a high hazard enforcement inspection, and 54,584 Title 8 violations have been observed and cited. Of these violations, 35.5 percent were classified as "serious."

The chart below indicates the yearly number of targeted inspections and violations observed and cited during the years 1994 through 2006. It should be noted that effective 2002, the Safety and Health Inspection Projects (SHIPs) are included in the High Hazard Enforcement Program figures.

[48] DOSH, 2005 High Hazard Employer Program Annual Report, January 11, 2007.

High Hazard Enforcement Program Inspections and Violations



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total High Hazard Inspections	207	396	270	423	540	499	560	401	4,724	3,692	3,229	3,804	4,128
Total High Hazard Violations	1,482	2,411	1,211	1,761	2,696	2,186	2,603	1,650	8,164	6,774	6,113	7,791	9,098

Data Souce: Division of Occupational Safety and Health

The same lost and restricted workday methodology is used for both High Hazard Consultation and Enforcement. Efficacy is measured by comparisons of employer lost and restricted workday data. Beginning in 2001, the Log 200 was replaced with the Log 300 as the source for lost and restricted workday data. The use of the LWDI rate was transitioned and replaced with the DART rate.

For further information…

- Additional information can be obtained by visiting the Cal/OSHA website at www.dir.ca.gov/DOSH or by e-mailing your questions or requests to InfoCons@dir.ca.gov.

Safety Inspections

DOSH has two major units devoted to conducting inspections to protect the public from safety hazards:

- The Elevator, Ride and Tramway Unit conducts public safety inspections of elevators, amusement rides, both portable and permanent, and aerial passenger tramways or ski lifts; and

- The Pressure Vessel Unit conducts public safety inspections of boilers (pressure vessels used to generate steam pressure by the application of heat), air and liquid storage tanks, and other types of pressure vessels.

Other specialized units such as the Crane Certifier Accreditation Unit, the Asbestos Contractors' Registration Unit, the Asbestos Consultant and Site Surveillance Technician Unit, and the Asbestos Trainers Approval Unit are responsible for enforcing regulations pertaining to crane safety and prevention of asbestos exposure.

Safety and Health Standards: The Cal/OSHA Standards Board

The Occupational Safety and Health Standards Board (OSHSB), a seven-member body appointed by the Governor, is the standards-setting agency within the Cal/OSHA program. The mission of OSHSB is to promote, adopt, and maintain reasonable and enforceable standards that will ensure a safe and healthful workplace for California workers.

To meet DIR Goal 1 on ensuring that California workplaces are lawful and safe, the Board shall pursue the following goals:

- Adopt and maintain effective occupational safety and health standards.
- Evaluate petitions to determine the need for new or revised occupational safety and health standards.
- Evaluate permanent variance applications from occupational safety and health standards to determine if equivalent safety will be provided.

OSHSB also has the responsibility to grant or deny applications for variances from adopted standards and respond to petitions for new or revised standards. The OSHSB safety and health standards provide the basis for Cal/OSHA enforcement. For a list of recent standards, see Appendix D.

For further information…

www.dir.ca.gov/OSHSB/oshsb.html

Ergonomics Standards

Efforts to adopt an ergonomics standard in California and the United States are outlined in the CHSWC's 2006 Annual Report under "brief histories."

Cal/OSHA Appeals Board

The Cal/OSHA Appeals Board[49] is a three-member body, currently headed by Chairwoman Candice Traeger. Cal/OSHA classifies the violations and proposes penalties according to the formulas directed by the Director's regulations. An employer can appeal those penalties, and more often than not an employer does appeal. In fact, employers have been appealing penalties at a higher rate for the past seven years than they have in the history of the program, according to recent information from DOSH Acting Chief Len Welsh. The appeals process looks into the appropriateness of the penalty assessed by the Division. An appeal allows for an opportunity for the penalty to be lowered substantially from the proposed level. Mr. Welsh stated that there is quite a controversy that can arise around whether that process is functioning the way it should.

[49] http://www.dir.ca.gov/OSHAB/oshab.html

He stated that there are certainly cases in which he believes it has been inappropriate for the Board to reduce penalties, and he stated that there are other cases when it has been entirely appropriate. He also stated that the Appeals Board does not believe that it is bound by the Director's regulations, and that the agency has statutory authority to lower a penalty in the interest of justice when it believes that that is appropriate after taking into account the entire set of circumstances for which there is a penalty violation.

Mr. Welsh further stated that it is a challenge to collect the penalty and that part of the problem is that the Appeals Board has a substantial backlog. Cases can wait as long as two and a half to three years before going to appeal. He stated that this is largely a result of the increased incidence of appeals coupled with the staffing of the Appeals Board which has not been adequate to meet the task.

Educational and Outreach Programs

In conjunction and cooperation with the entire safety and health and workers' compensation community, DIR administers and participates in several major efforts to improve occupational safety and health through education and outreach programs.

Worker Occupational Safety and Health Training and Education Program
CHSWC is mandated by Labor Code Section 6354.7 to maintain the Worker Occupational Safety and Health Training and Education Program (WOSHTEP). The purpose of WOSHTEP is to promote safety and health prevention programs.

The California Partnership for Young Worker Health and Safety
CHSWC has convened The California Partnership for Young Worker Health and Safety. The Partnership is a statewide task force that brings together government agencies and statewide organizations representing educators, employers, parents, job trainers and others. The Partnership develops and promotes strategies to protect youth at work and provides training, educational materials, technical assistance, and information and referrals to help educate young workers.

Forum on Catastrophe Preparedness: Partnering to Protect Workplaces
The "Forum on Catastrophe Preparedness: Partnering to Protect Workplaces" was held on Friday, April 7, 2006, at the South San Francisco Conference Center. Recognizing that employers and workers should be prepared if a catastrophe strikes at the workplace, CHSWC voted to host a public education program devoted to workplace safety in the event of terrorist attacks and natural disasters. CHSWC developed this forum to provide an opportunity for the safety, health and workers' compensation communities and the public to discuss and share ideas for safety in responding to terrorist attacks and natural disasters, learn lessons from other experiences, and consider areas where improvements need to be made.

This forum brought together leaders in homeland security, emergency response, and occupational safety and health to discuss individual, worker and employer preparedness

for catastrophic risks. For information on the forum, see the "Special Report: Catastrophe Preparedness at the Workplace."

For further information…

Additional information about the Forum can be obtained at http://www.dir.ca.gov/chswc/forum2006.html

Cal/OSHA Consultation

Consultative assistance is provided to employers through on-site visits, telephone support, publications and educational outreach. All services provided by Cal/OSHA Consultation are provided free of charge to California employers.

Partnership Programs

California has developed several programs that rely on industry, labor, and government to work as partners in encouraging and recognizing workplace safety and health programs that effectively prevent and control injuries and illnesses to workers. These partnership programs include the Voluntary Protection Program (VPP), Golden State, SHARP, Golden Gate, and special alliances formed between industry, labor, and OSHA.

Department of Public Health Programs

The public health surveillance and prevention programs in the California Department of Public Health (CDPH) complement the work of DOSH. Since well before the creation of Cal/OSHA, the Department of Public Health (formerly Department of Health Services) has had a non-regulatory occupational health program with mandates in the Health and Safety Code that focus on prevention of work-related diseases (conducting investigations to determine their causes, making recommendations for improved workplace controls, maintaining a thorough knowledge of the effects of industrial chemicals and work practices on the health of California workers, providing technical assistance related to occupational disease prevention, and collecting and summarizing relevant statistics). Following the creation of Cal/OSHA (also referred to in this report as DOSH or the state 18b program), all enforcement of occupational regulations was placed in the Department of Industrial Relations. CDPH has continued to perform occupational public health activities complementary to, and in collaboration with, DOSH.

The current CDPH program, the Occupational Health Branch (OHB), was established by the Legislature in 1978 after a group of California workers became sterile from exposure to the pesticide dibromochloropropane (DBCP), which had been shown to cause reproductive damage in animals 18 years earlier. OHB is a non-regulatory program dedicated to improving the health and safety of California's workers through unique public health surveillance, research, and prevention activities. OHB uses California occupational health surveillance data to direct its prevention activities and therefore recognizes that continuous improvement of the completeness and usability of these data

systems is extremely important. OHB works with employers, workers, unions, industry groups, health professionals, Cal/OSHA, other state agencies, and the general public. OHB operates several toll-free public information lines (the Workplace Hazard Helpline, Pesticide Poisoning Helpline, and Lead in the Workplace Helpline) and maintains a Web site with information and resources on occupational health (www.dhs.ca.gov/ohb).

The Occupational Health Branch's public health functions include:

- Identifying and evaluating workplace hazards and providing early warning to employers, workers, health care professionals, Cal/OSHA, and others on new or unappreciated hazards.
- Tracking patterns of work-related injury and illness including asthma, pesticide illness, lead poisoning, and fatal injuries to understand which workers are at risk and target prevention activities.
- Developing safer ways to work in collaboration with others.
- Providing information, training, and technical assistance to prevent workplace injury and illness.
- Recommending more protective workplace standards.
- Responding to concerns of the Legislature and public about hazardous chemical exposures.

The Occupational Health Branch is made up of four programs:

- Hazard Evaluation System and Information Service (HESIS)
- Occupational Health Surveillance and Evaluation Program (OHSEP)
- Occupational Lead Poisoning Prevention Program (OLPPP)
- California Safe Cosmetics Program (CSCP).

Hazard Evaluation System and Information Service

HESIS continuously reviews and evaluates the scientific literature to identify toxic workplace chemicals that could harm human health and provide early warning to employers, workers, and health care professionals about how to prevent illness by eliminating or controlling exposure. No other state or federal program is mandated to perform this hazard surveillance function. HESIS provides practical workplace health and safety information to workers, employers, and health professionals, for example, its Diacetyl (Butter Flavor) Health Hazard Alert aimed at preventing severe lung disease. HESIS is charged with alerting Cal/OSHA when a new or revised occupational health standard is needed, and providing the scientific/health basis for these regulations. HESIS also provides valuable medical consultation to Cal/OSHA for its compliance investigations, as well as support in standards setting. HESIS is funded by DIR through an interagency agreement. The funds provided to CDPH by DIR are a 50/50 mix of general and federal funds, as Cal/OSHA receives federal funds for its state-based regulatory program.

Occupational Health Surveillance and Evaluation Program

OHSEP collects and evaluates occupational injury and illness data in order to identify high-risk occupations and industries and develop and disseminate practical solutions and recommendations to improve job safety. OHSEP currently uses Doctor's First Reports of Occupational Injury or Illness (DFRs) and the Workers' Compensation Information System (WCIS), two complementary DIR data sources, to track work-related asthma, pesticide poisoning, and heat illness, and to develop prevention activities. OHSEP's analysis of these data sources has shown, for example, that health care and educational services have large numbers of work-related asthma cases related to the use of cleaning chemicals. OHSEP is now conducting field work to evaluate cleaning chemicals and work practices and develop prevention strategies for eliminating or reducing worker exposure to hazardous substances. OSHEP is primarily funded by grants from the National Institute of Occupational Safety and Health (NIOSH).

Occupational Lead Poisoning Prevention Program

OLPPP operates the State's adult lead poisoning surveillance system, a laboratory-based reporting system for blood lead level test results; investigates cases of lead poisoning in workers and in children exposed to lead contamination brought home from the workplace; and provides education, outreach, and other lead poisoning prevention activities to employers, employees, and health care providers. In the course of investigating elevated blood lead levels, OLPPP frequently refers employers to Cal/OSHA Consultation Service for assistance in identifying and correcting lead safety hazards. While OLPPP's policy is to work cooperatively with employers, the program will refer an employer to Cal/OSHA Compliance if the employer fails to take appropriate steps to comply with the Lead Standards and protect workers from lead poisoning. OLPPP is a fee-based program funded entirely from fees assessed on businesses that use or disturb lead.

California Safe Cosmetics Program

The goal of the California Safe Cosmetics Program is to gather and make publicly available information about chemicals known to cause cancer or reproductive harm that are contained in cosmetic products marketed in California. CSCP is now developing a list of cosmetic product ingredients that must be reported to CDPH by law and creating a reporting system for manufacturers. To the extent that resources are available, CSCP will research exposure to cosmetic chemicals in the workplace and health effects on workers, particularly nail salon workers, and notify Cal/OSHA if toxic exposure levels are documented. CSCP receives its funding from the State General Fund.

Current OHB Initiative on Safer Chemicals Policies

OHB believes the best way to protect workers from occupational illness and disease is to get harmful chemicals out of the workplace and substitute them with safer chemicals. The program has launched a three-to-five-year initiative entitled "Achieving Safer

Chemicals Use Policies: a Partnership between Occupational and Environmental Health." OHB will work with its environmental partners within CDPH and outside the Department to reduce or eliminate the use of toxic chemicals by promoting alternative chemicals or work processes that are safer for workers, community members, and the environment.

Appendix A. Types of Inspections

TYPES OF INSPECTIONS[50]

1. Unprogrammed Inspections

Unprogrammed inspections are inspections conducted in response to:

a. An accident involving a fatal or a serious injury or illness or other event (See P&P C-36, C-170 & 170A);

b. A complaint alleging a workplace hazard or a violation of a Title 8 Safety Order (See P&P C-7);

c. A complaint from a governmental agency representative alleging a workplace hazard or a violation of a Title 8 Safety Order (See P&P C-7);

d. A referral from a non-governmental organizational entity alleging a workplace hazard or a violation of a Title 8 Safety Order (See P&P C-90); or

e. A follow-up inspection of a previous inspection which involved one of the following (see P&P C-15):

(1) Willful/Serious or Repeat/Serious violations;

(2) Serious violations requiring abatement within fewer than six days;

(3) Special Orders or Orders to Take Special Action;

(4) Serious violations of 8 CCR Section 3203;

(5) Twenty percent of all inspections involving a serious violation not abated at the time of inspection and not otherwise scheduled for reinspection;

(6) Inspections involving serious violations not abated at the time of the inspection and for which the Division has not received verification of abatement from the employer by means of a signed Cal/OSHA 161;

(7) Inspections involving regulatory or general violations not abated at the time of the inspection and for which the Division has not received verification of abatement from the employer by means of a signed Cal/OSHA 160; or

(8) Other reasons deemed appropriate by the District Manager. See P&P C-1A.

NOTE: Every unprogrammed inspection shall include an inspection of all employers directly affected by the conditions

[50] Cal/OSHA procedure manual, http://www.dir.ca.gov/DOSHPol/P&PC-1.HTM

related to the accident, complaint or referral. See Section A.2 below.

2. Unprogrammed-Related Inspections

a. An unprogrammed-related inspection is an inspection of an employer who is working at a worksite in which another employer is being inspected by the Division because of a complaint, accident or referral.

b. Unprogrammed-related inspections may be initiated when compliance personnel observe a hazard to which another employer's employees are exposed at the same worksite, an employee of another employer makes an on-site complaint about other safety or health hazards, or compliance personnel determine that an inspection of another employer is necessary.

3. Programmed Inspections

a. A programmed inspection is an inspection of an employer initiated by an inspection schedule based upon objective criteria developed by the Division.

b. Employers can be selected for a programmed inspection from any of the following sources:

(1) Annual Performance Plan/Strategic Plan Inspections;

(2) Targeted Employers Programmed Inspection List(s);

(3) Special Emphasis Programmed Inspection List(s);

(4) Carcinogen Registration List;

(5) Asbestos Notification List;

(6) Crane Certifiers List;

(7) Construction Activity Permittee List; and

(8) Any other source developed by the Division.

NOTE: Annual inspections conducted by the Mining & Tunneling Unit of underground mines, surface mines or quarries, and tunnels under construction are programmed inspections.

4. Programmed-Related Inspections

a. A programmed-related inspection is an inspection of an employer who is working at a worksite in which another employer is undergoing a programmed inspection.

b. Programmed-related inspections may be initiated when compliance personnel observe a hazard to which another employer's employees are exposed at the same worksite, an employee of another employer makes an on-site complaint about other safety or health hazards, or compliance personnel determine that an inspection of another employer is necessary.

Appendix B. Definition of Recordable Cases

Recordable cases include work-related injuries and illnesses that result in:

- Death
- Loss of consciousness
- Days away from work
- Restricted work activity or job transfer
- Medical treatment (beyond first aid)
- Significant work related injuries or illnesses that are diagnosed by a physician or other licensed health care professional. These include any work related case involving cancer, chronic irreversible disease, a fractured or cracked bone, or a punctured eardrum.

Additional criteria that can result in a recordable case include:

- Any needlestick injury or cut from a sharp object that is contaminated with another person's blood or other potentially infectious material.
- Any case requiring an employee to be medically removed under the requirements of an OSHA health standard.
- Tuberculosis infection as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional after exposure to a known case of active tuberculosis.
- An employee's hearing test (audiogram) reveals 1) that the employee has experienced a Standard Threshold Shift (STS) in hearing in one or both ears (averaged at 2000, 3000, and 4000 Hz) and 2) the employee's total hearing level is 25 decibels (dB) or more above the audiometric zero (also averaged at 2000, 3000, and 4000 Hz) in the same ear(s) as the STS. [51]

[51] http://www.bls.gov/iif/oshdef.htm

Appendix C. Definition of Days away from work, days of restricted work activity or job transfer (DART)

Days away from work, days of restricted work activity or job transfer (DART) are cases that involve days away from work, or days of restricted work activity or job transfer, or both.

- **Cases involving days away from work** are cases requiring at least one day away from work with or without days of job transfer or restriction;
- **Job transfer or restriction cases** occur when, as a result of a work-related injury or illness, an employer or health care professional keeps or recommends keeping an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred.[52]

[52] Op. cit., http://www.bls.gov/iif/oshdef.htm

Appendix D. Recent standards created or revised by the Cal/OSHA Standards Board

- Sections 1529, 1532, 1532, 1532.1, 5190, 5198, 5200, 5202, 5207, 5208, 5210, 5211, 5212, 5213, 5214, 5217, 5218, 5220, and 3858 Assigned Protection Factors for Respirators (effective March 6, 2007)
- Appendix B, Plate B-1-a Sanitation of Personal Safety Devices (effective August 27, 2006)
- Section 1518 Protection from electric shock (effective February 26, 2006)
- New Sections 1532.2, 5206, 8359 and Section5155 Hexavalent Chromium (effective September 19, 2006)
- Section 1541 Excavations, General Requirements (effective March 31, 2007)
- Section 1598 and 1599 Update References for Traffic Control (effective January 28, 2007)
- Sections 1620, 1626, and 1629 Railings and stairways (effective May 20, 2007)
- Section 1635 Floor openings (effective February 24, 2006)
- Section 1644 Metal scaffolds (effective March 30, 2006)
- Section 1710(f) Column stability for structural steel erection (effective April 14, 2006)
- Sections 1801 and 8416 Update of ANSI Z136.1 Laser Safety Standards, Warning Signs, Labeling, and Posting of Signs (effective May 27, 2007)
- Emergency Standard Heat Illness Prevention
- Section 1720 Concrete pumps and placing booms (effective May 3, 2006)
- Section 1730 and New Section 1731 Trigger height for production residential roofing (effective April 1, 2007)
- Sections 3291, 3292, 3295, and 3296 Load Sustaining Devices Used in Window Cleaning and Building Maintenance Operations (effective April 26, 2007)
- Section 3385 Update of National Consensus Standard Reference for Protective Footwear (effective January 26, 2007)
- Section 3395 Heat Illness Prevention (effective July 27, 2006)
- Sections 3482, 5156 and 5178 Grain Handling (effective December 14, 2006)
- Sections 3637-3640, 3642 and 3646 Mast-climbing work platforms (effective March 29, 2006)
- Section 3650 Labeling, Design, and Construction of Powered Industrial Trucks (effective December 2, 2006)
- Section 4543 Guarding of Meat Cutting Band Saw Blades (effective July 1, 2007)
- Section 4920 Boom-type mobile cranes (effective October 25, 2006)
- Section 5001 Cranes and Other Hoisting Equipment--Signals (effective June 22, 2007)
- Sections 5004, 5047, 8379 Use of Personnel Suspended Platforms from Crane or Derrick (effective May 24, 2007)
- Section 5006.1 Mobile and Tower Crane Operator Certification, Exception No. 2--Electric Line Trucks (effective January 14, 2007)
- Section 5154.1 Ventilation requirements for laboratory-type hood operations (effective August 30, 2006)
- Section 5155 Airborne contaminants (effective July 6, 2006)
- Sections 5161 and 5178 Grain Handling Facilities (effective December 14, 2006)
- Section 6368 Fuel Houses, Chip Bins, and Hoppers--Sawmills (effective December 14, 2006)
- Sections 6505, 6533, 6551 and New Section 6552 Drilling and production (effective July 26, 2006)
- Sections 6755, 6845, 6857 and New Section 6858 Refining, transportation and handling (effective July 26, 2006)

- Sections 8354 and New Sections 8397.14, 8397.15, and 8397.16 Fire protection in shipyard employment II (effective February 22, 2006)
- Section 8397.16 Shipyard Safety Orders, Land-Side Fire Protection--Update of National Fire Protection Association (NFPA) Standards (effective May 16, 2007)
- Title 8 Reform - CASO/GISO Chapter 4, Subchapter 7, New Article 154 (effective May 4, 2006)

Source: OSHSB website at http://www.dir.ca.gov/oshsb/apprvd.html

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