

**Review of OSHA Proposed Ergonomics Program Standard**

**By**

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## 1. Introduction

The purpose of the proposed Ergonomic Program Standard is to provide a performance-based framework for addressing musculoskeletal disorders (MSDs) in the workplace. There is no general disagreement that these injuries and illnesses are far too common and a method to address these hazards is needed. BLS statistics indicate that 34% of all lost-workday injuries are MSDs. The objective of the draft rule is intended to reduce the risk of occupational MSDs through various elements in the proposed ergonomics program: management commitment, employee participation, hazard identification and awareness, job hazard analysis and control, training, medical management and program evaluation. Industry experience supports OSHA's assumption that implementation of these elements in an integrated program can significantly reduce risks associated with a variety of workplace injuries and illnesses. In fact, BLS statistics also indicate that there has been a decrease in MSDs over the past three years.

The overall approach in the proposed standard is not inappropriate. However, the elements as described and the underlying assumptions open up significant liabilities and have potentially tremendous economic impacts to all businesses and industries covered by the proposed standard. The draft standard could potentially negatively impact the factors that are currently resulting in the decrease of MSDs in the workplace over the past three years.

I have been asked to review the materials provided by OSHA as a small entity representative (SER) of the SBREFA Panel. As an SER, my objective is to provide insight on the potential economic impact of the proposed rule on small business entities. Small businesses typically do not have the personnel or financial resources of larger entities. However, we still must comply with all governmental regulatory requirements. OSHA is only one of many government entities that is promulgating regulatory requirements. We must be extremely careful in how we allocate our resources. There is not much room for experimentation and one mistake can put us in an economic tailspin that is impossible to recover from. I know; I have personally gone through this type of experience.

As small business owners, we take our responsibilities to our employees very seriously. We know that the ramifications of not running our businesses effectively and efficiently, impact not just ourselves but each individual person in our employ. There is nothing more terrifying than missing payroll. An IRS audit or an OSHA inspection is nothing compared to knowing that your employees are depending upon that paycheck to pay their bills and feed their children.

Our responsibility to provide a safe and healthful work environment is important to us. Our employees are not numbers on a page or interesting statistics to us. We work side by side with them every day. We go to their weddings and their children's birthday parties. Most employers attempt to rectify health and safety issues as soon as they are made aware of them. Most injuries and illnesses occur through ignorance (lack of knowledge) or a moment of diverted attention. We can cure ignorance.

The ability of a small business owner to responsibly provide both a safe working environment and financial support of our employees depends ultimately on the delicate balance of managing our costs, limiting our liabilities, and allocating our limited resources to result in a positive cash flow. We cannot assume costs or invest in programs that will result in negative cash flow. Several elements of the proposed ergonomic standard and the underlying economic analysis provided by OSHA indicate that the costs will exceed the benefits. As responsible business owners, it is necessary for us to make sure that we can afford to implement any ergonomic program standard promulgated and that it will have the anticipated results.

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The proposed Ergonomic Program Standard has significant potential economic impacts to small business. OSHA estimates a total cost to employers of \$3.5 billion. In my fifteen years of experience with EPA and OSHA regulatory compliance, governmental estimates are always 1/10 to 1/4 of the actual implementation costs. The governmental estimates seldom include indirect costs. Based upon this assumption, the total costs to employers will probably be \$35 to \$14 billion. Costs to small businesses will probably be more in the range of \$20 to \$8 billion, using OSHA's projections and my assumptions. That is a significant impact to the bottom line of many small businesses.

The incidence of MSDs has been decreasing over the past three years through processes already in motion within industry. Factors currently contributing to this trend probably result from the increased awareness by employers of the issue from information available from NIOSH, OSHA and the insurance industry. Businesses, particularly small businesses, have been implementing job hazard analyses and employee training through the requirements of the General Duty Clause and insurance industry economic incentives. The elements of the proposed standard that support or contribute to increased awareness and facilitate the reduction of costs can be supported and implemented by the small business community. The elements of the proposed standard that increase our liabilities and costs beyond reasonable limits must be addressed.

In preparing my review of this proposed standard, I am drawing upon my ten years of experience as a small business owner and my fifteen years as an environmental, health and safety professional in the manufacturing industries. I have been an authorized instructor of General Industry Standards by OSHA since 1990. I am deeply grateful for the assistance of many professional associates and clients who have assisted me in reviewing and discussing this proposed standard and providing generously of their own experience, ideas and data. I appreciate the opportunity to share this information with the SBREFA Panel and OSHA. The intention of my testimony is to participate in developing a method to 1) prevent MSDs, 2) be economically and technically feasible, and 3) minimize costs and liabilities to the small business community. Through critical examination and open discussion of our basic assumptions and data, I know we will develop a solution that will achieve these goals.

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## 2. GENERAL QUESTIONS/CONCERNS

The major concerns about this proposed standard involve the potential liabilities associated with its implementation and the potential conflicts with regulatory requirements of other governmental agencies. Recognizing that this is a draft, the vagueness of some of the terms and concepts could open up significant liabilities for small businesses that will be resolved only through lengthy and costly litigation. There are also concerns about the scientific soundness of the basic assumptions, particularly the correlation of repetitive motions with injury rates, which have not been addressed. These concerns coupled with the tremendous costs anticipated with implementation all contribute to reducing the global competitiveness of small manufacturers in the United States.

As a group, entrepreneurs are willing to assume risks or liabilities. However, the liabilities must be identified and quantified to a reasonable degree. Once our liabilities are quantified, we can develop strategies to reduce, eliminate or control those risks. To do otherwise is foolhardy. The following discussion is an attempt to identify some of the potential liabilities associated with the proposed ergonomic program standard.

I have included a legal analysis by Robert M. Aurbach, General Counsel for the New Mexico Workers' Compensation Administration, in Appendix I. The major issues identified by Mr. Aurbach based upon his experience as an expert in workers' compensation law and practice are:

- A. The trigger identified in the standard is reporting of a MSD and the presence of hazards reasonably likely to cause or contribute to the type of MSD reported. Medical certainty in Workers' Compensation law is a well-established standard. An employer assumes substantial economic obligations for diagnosis and treatment of MSDs before causal factors are clearly identified.
- B. Every state workers' compensation system contains provisions requiring the injured worker to carry the burden of proof that their injury was incurred in the course and scope of their work. The burden of proof is shifted to the employer in this standard. This potentially establishes an irrebuttable presumption, disfavored under both federal and state laws because of its impact to Due Process clauses of the Constitution.
- C. An employer has no opportunity to contest a health care professional's evaluation of the worker's medical condition and the self-reported medical history. Every workers' compensation system has a mechanism for resolution of disputes at various points in the process of treatment and recovery. This provision protects both the employer and the employee.
- D. The employer's property rights to recover costs incurred are violated if the determination that the MSD is not work-related.
- E. The provisions of Section 1910.505 (b)(2) require the employer to ask an employee if they are experiencing signs and symptoms of MSDs. The potential for 'first year medical student syndrome', heightened awareness, will result in increased reporting of MSDs that may or may not be work related. Since the trigger for medical management is one reported MSD, the employer will have to spend a significant amount of money on medical costs before it is determined to be associated with work practices.
- F. The financial incentives provided in Section 507 (f) increase the probability of employees reporting signs and symptoms of MSDs. The workers' compensation industry describes these as 'green poutice' and red pickup diseases. These factors create a 'moral risk' of loss in the insurance industry.
- G. Employers are presented with Hobson's choice. If an employer denies compensation for a workplace MSD injury based upon negligence of the worker, the employer is subject to sanctions for bad faith administration of the Workers' Compensation Act. If an employer accepts the claim, the full requirements

of the standard become applicable even though the hazard that caused the injury/accident was strictly the choice of the worker.

F. All state workers' compensation laws have provisions identifying them as the exclusive remedy for job injury. Section 507 clearly violates state law at a fundamental level. Congress did not authorize OSHA to promulgate regulations impacting post injury treatment of workplace injuries [29 U.S.C. 653 (b) (4)].

Clearly, these issues need to be addressed prior to promulgating a final standard. The triggering mechanism for the standard must be modified. The provisions of the standard in violation of state law must be eliminated. Definition and clarification of employer responsibilities regarding pre-existing conditions, aggravation of non-workplace MSD conditions must be completed before this standard is promulgated. Additionally, impacts to choice of health care provider and a mechanism for disputes regarding medical treatment must be addressed.

Because of the increased liabilities and potential for increased legal dispute, the insurance industry will probably make an adjustment to their Workers' Compensation and business liability rates to industries impacted by this proposed standard. Nothing makes a small business owner shudder more than another increase in insurance rates. The potential risks are as yet undefined and not quantified. OSHA anticipates an increase in reporting of MSDs. I suspect these factors will contribute to a significant increase in insurance rates.

To illustrate the potential economic incentives, I did a quick calculation using the requirements of Section (f). Employee's normal salary is \$10/hour. Total salary for the 40-hour week is \$400. Employee's normal take home is \$300 (25% deducted for FICA, FUTA, SUTA, etc.). If out on disability leave, employee would receive \$266.69 (66.27% of non-taxed salary). With the proposed OSHA requirement, employer would have to give employee an additional \$99.98 (\$400-\$266.69= \$133.31, deducting 25% (\$33.33) for taxes. The employee's take home salary while on a MSD related disability is \$366.67 (\$266.69 + 99.98). This is a very lucrative incentive (22% pay increase) to stay out on disability leave for 6 months. I have named this the MSD raise.

There is potential impact to Welfare-to-Work programs currently being implemented across the country. These programs have encountered considerable initial employer resistance due to the perception, however irrational, that current welfare recipients are more likely to report on the job injuries in the workplace than the normal population. The economic incentive provided in this standard for MSD injuries and illnesses may in fact allow that perception to become a reality. The provisions in Sections 505 and 507 will only add fuel to the fire to the concerns of these potential employers.

Because this standard does not clearly indicate OSHA's position on pre-existing conditions, I also see potential conflicts with the American's with Disabilities Act. Employers are not allowed to discriminate in our hiring practices against individuals with disabilities. My limited understanding of ADA is that employers are not allowed to ask questions about an individual's medical conditions prior to employment. However, with the potential medical costs associated with implementation of this standard, most employers will probably implement comprehensive pre-employment medical evaluations. (Another cost not included in OSHA's analysis.) If there is any questions about a potential employee's condition being aggravated by normal work tasks, I seriously doubt employers will hire these individuals. The employer is then potentially subject to ADA discrimination legal action.

Information I have gleaned from surfing the internet on risk factors for carpal tunnel syndrome, indicate that an individual's risk is increased with the presence of diabetes mellitus, hypothyroidism, menopause, Raynaud's disease, pregnancy, and obesity. Women aged 29 to 62 are also more at risk than men for carpal tunnel syndrome. There is substantial disagreement in the medical community about the relationship between many MSDs and job tasks (especially repetitive motion). Are there Equal Employment Opportunity liabilities if we do not hire a person with risk factors for a job with identified MSD hazards?

I would also like to point out that in other OSHA standards, there are allowances made for the nuances associated with aging (i.e. the Hearing Conservation Program). There are no allowances for these issues

provided in the proposed standard. Many of the signs (decreased range of motion, decreased grip strength, swelling) and symptoms (pain, aching, stiffness) in the proposed standard are associated with aging. [I have taken two ibuprofen while preparing this written testimony. If I report this to myself, do I have to implement the whole Ergonomic Program Standard?]

The differences of opinions between employers, employees (and their attorneys) and OSHA compliance officers regarding 'feasible' fix is a serious issue. Does OSHA mean technically feasible or economically feasible? For example, in New Mexico, tort claims for liabilities established with the promulgation of OSHA's workplace violence initiative (not even a standard) is beginning to work its way through our judicial system. Recent case law has established that if an employer knows a hazard exists and does nothing about it (as OSHA claims in this standard, employer's don't have to do anything until an injury exists), the employer assumes willful liabilities. The level of prevention is also being litigated (is a security system adequate or are bulletproof windows necessary). At least in New Mexico, the knowledge of hazards is becoming a significant liability issue for employers through decisions from the judicial system. When and how hazards are addressed is also becoming courtroom fodder. Juries in New Mexico are exceptionally liberal with damage awards (i.e. the McDonald's hot coffee spill award of \$5 million). There is no doubt that general or vague terminology such as 'feasible' in this standard will end up in litigation.

I talked to the safety manager at a very large manufacturing facility in Rio Rancho, New Mexico that has had an extensive ergonomics program in place since approximately 1991. They found it extremely difficult to find occupational physicians in Albuquerque that could treat employees' MSDs with any success. In addition, they still find that approximately 30% of the MSDs have no identifiable cause (work or non-work related). Based upon this experience, and the financial obligations incurred for diagnosis and treatment under this standard, small businesses without significant resources could be in a serious dilemma.

Many of our small manufacturers in New Mexico are in rural locations. Access to the occupational specialists that can identify and treat ergonomic illness and injuries requires travel to larger urban areas. The costs associated with travel and lodging during diagnosis and treatment could add up for our rural manufacturers under the medical management provisions of this standard.

While I will discuss the cost impacts in the next section, the potential impacts to small manufacturers' global competitiveness becomes an issue when this standard, as currently proposed, goes into implementation. Companies with ISO 9000 and 14000 certifications are required to be in compliance with applicable regulatory standards. These standards do not depend upon whether or not you get 'caught' by OSHA. A very large manufacturer in Rio Rancho, New Mexico has approximately 30,000 small manufacturers that supply parts. We estimated that approximately 20% of these small suppliers would not have the financial resources to implement the proposed ergonomic program standard. These small manufacturers could no longer supply the large manufacturer because of their ISO 14000 certification requirements. We estimated that approximately 6000 small manufacturers could lose contracts that are important to their business. The remaining 80% of the suppliers will implement this standard and pass those costs through to the large manufacturer in price increases. We estimated potential price increases of 5% to 15%. The price increases and loss of suppliers will have a significant impact on the larger manufacturer.

I have also included in Appendix II the tables and charts for MSD indemnity claims in New Mexico from 1991 to 1997. Approximately 68.4% of our 1997 claims were associated with MSD type injuries and illnesses. It is not possible at this point to directly compare our data to OSHA's data due to how the information is collected. The types of claims included are: back injuries (22.7%), wrist/hand & finger injuries (15.8%), arm injuries (8.0%), knee injuries (10.5%) and multiple parts (11.4%). Our indemnity claims rate has reduced from 1.56 (claims per 100 workers) in 1991 to 0.81 in 1997. Our number of employees is increasing and our injury rates are decreasing significantly. In other words, our injury rates are almost 1/2 from 1991 to 1997. Our indemnity costs are dropping, too. In New Mexico, we have accomplished the dramatic reduction in injury through training and awareness efforts. Labor and business organizations have worked together in a very positive way to address these issues. We have achieved these results without federal OSHA standards. So, I question the need for this type of standard in New Mexico.

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It would be nice for us to see how far we can continue to reduce our MSD type injury rates without additional regulations.

I am concerned that OSHA used accident and injury data from prior to 1992 in its analysis. BLS data indicates these downward trends are nation-wide for the past three years. I am concerned that the proposed standard will impose costs and liabilities that will divert business and industry from continuing our obviously successful attempts to reduce all injuries and illnesses.

In summary, the proposed Ergonomic Program Standard sets up potential conflicts with other regulatory requirements and authorities. Clarification of terminology and applicability of this standard could possibly avoid some of these potential conflicts. However, the sections in conflict with Workers Compensation laws should be eliminated. The medical diagnosis and treatment methods of MSDs will develop. Eventually, a pool of expertise will also be available. The projected costs during this process will be a significant burden to smaller businesses. And, based upon New Mexico's MSD type injury rates and their significant decrease in the past seven years, I seriously question the need for this proposed Ergonomics Program Standard at this time.

### 3. COSTS AND ASSUMPTIONS

The following comments are directed at the information provided in the Summary of Costs, Benefits, and Impacts and from the Preliminary Initial Regulatory Flexibility Analysis provided by OSHA. My comments are primarily to address issues associated with the basic assumptions and deductions provided in these two documents. I am not in any way attempting to disagree that the data from the BLS is incorrect. I do not believe I can provide better data. I am simply suggesting that many additional costs (both direct and indirect) have not been included in the cost estimates and that the time estimates are significantly different from my experience in implementing the elements identified in the proposed standard.

In the introduction of the Summary of Costs, Benefits and Impacts, the first assumption stated (that hazard control costs do not include any offset for productivity benefits) specifically acknowledges that automation and mechanical lifts have indirect impacts on productivity. OSHA's deduction is that these controls increase productivity through reduced absenteeism. However, that would be a long-range benefit, not an immediate benefit. The initial costs of purchase, installation and training do not appear to be included in the cost estimates.

OSHA's second assumption is that all MSDs are currently assumed to be work-related, thus triggering full implementation of the program. In the proposed standard, there is an irrebutable presumption that MSDs are work-related. There is also a significant lack of clarity of how we will separate costs incurred to distinguish work vs. non-work related MSDs. In addition, the proposed method of identification of potential MSDs in the standard will also probably increase the number of MSDs reported. Therefore, OSHA's deduction that they are over-estimating the number of MSDs is probably not correct.

OSHA clearly recognizes that there will probably be different costs associated by industry classification and factors of scale between larger and smaller manufacturers.

The quantification of benefits of implementing this proposed standard depends upon prevention of MSDs. However, the standard does not go into effect in any business until an MSD is identified. Typically, costs associated with prevention should be lower than the costs associated with treatment of MSDs. OSHA estimates that the cost savings would be \$4.7 to \$14 billion over 10 years. However, initial costs of implementation are estimated to be \$3.5 billion in the first year. As a small business owner, if I can't recover costs or relative economic benefit within 3 to 6 months, the initial costs of implementation could impact my cash flow so significantly that I won't be in business 8 to 10 years from the OSHA projected realization of economic benefits. I seriously doubt I could borrow money from the bank to initiate the changes if I couldn't justify economic benefit within 1 year. So, where is the money going to come from to initiate compliance?

By OSHA's numbers, we are estimating cost savings associated with preventing 17,000 to 67,000 MSDs in small business to be \$357 million to \$1.4 billion per year (if direct costs for treating an MSD are \$21K per injury/illness). The cost of implementation is estimated to be \$2 billion. The cost of implementation is probably closer to \$20 billion based upon my experience with Bloodborne Pathogens and Lock Out/Tag Out implementation costs. Using OSHA's numbers, it is cheaper to treat the MSDs rather than prevent them. In other words, it will only cost us \$117,647 to \$29,850 to prevent each MSD (\$2 billion/prevented MSDs). Or, it will cost us only \$21,000 to treat each MSD. It is supposed to cost less to prevent injuries and illnesses than to treat them in most cost benefit analyses.

I have tried to understand the information provided the Costs of Compliance from Page A-3 to A-17 of the Preliminary Initial Regulatory Flexibility Analysis. Rates of compliance were based upon a 1993 phone survey. Medical Removal Costs are associated with a 1994 workers compensation study. Control costs are based upon estimates provided by Mr. David Alexander. Revenue data are based upon 1995 business statistics. Indirect costs are estimated from a 1991 study. All of these statistics are then compared to 1997 workers compensation rates and statistics. I appreciate the difficulty in finding and utilizing appropriate statistical databases. However, there are basic statistical principles that have not been clearly identified in the Preliminary Analysis that significantly impact the type and degree of statistical inference that can be derived from the descriptive and correlational analyses.

The Preliminary Analysis also does not include recognition or discussion of some significant historical events that also could influence its predictive statistics. For example, the issuance of the OSHA ergonomic guidelines in 1992 and the subsequent six years of industry voluntary compliance do not appear to be included in the impact analysis. In addition, there have been major revisions of workers' compensation programs at the state level in the past five years that are resulting in significant and dramatic decreases in MSD illnesses and injury.

There is no description of the assumptions for the multiplier used (1.39) in calculating fringe benefits. I assume the multiplier includes taxes. However, does this multiplier include personal time off, vacation leave, medical and dental benefits? Does this multiplier include administrative overhead costs (team meetings, safety meetings, completing time cards, report preparation, etc), training time (in house and off site for professional development and certification), professional memberships, and insurance costs assumed by the employer (product and professional liability, disability, workers' compensation)?

Table A-7 estimates the cost savings associated with prevention of one MSD Workers' Compensation claim. The cost estimates are based upon 1997 rates. These rates do not include any adjustment that workers' compensation may make as a result of re-evaluation of liability associated with this standard. The estimate also does not include the costs associated with replacement or retaining of another individual to perform the job tasks associated with the removed employee. The calculation also does not include the lost production of goods or services associated with the evaluation period, training or replacement.

The same assumptions apply to Table A-8 and also do not include any potential legal costs associated with disability claims.

Table A-9 was missing from my materials.

Table A-10 is a summation of the costs identified on the other tables and indicates the cost savings OSHA associates with prevention of the MSD. The medical costs in this table should really be investigated further. Depending upon the type and severity of the illness or injury, the standard deviation for this number can be significant. While the Third Party liability claims is not quantified in this table, they are significant and real costs that employers are concerned about. The liability associated with this standard could open up a real can of worms for employers in the workplace.

There are many ways to solve a problem. However, the data presented by OSHA does not follow the same method that most businesses use to investigate and analyze economic costs and benefits. The incredible costs of implementation predicted by OSHA to solve a fraction of the MSD problem will be an incredible burden on many small businesses. In addition, the return on investment will be long term rather than short term. This situation could result in putting many small manufacturers out of business. The yet unidentified and multiple sources of extended liability will add tremendously to the legal costs of all businesses. The medical costs associated with pre-employment evaluations, MSD medical diagnosis and treatment will be burdensome.

#### Assumptions

The primary assumption of this standard is that there is a need for governmental action to intervene and prevent MSDs. The information included in Appendix II indicates that businesses in New Mexico are doing something to address workplace MSDs. The significant decrease MSD rates in the past seven years can probably be attributed to increased awareness, assistance by insurance agencies in addressing illness and injury causes, and requirements of the General Duty clause to provide a safe and healthful work environment. We have accomplished reducing our accident and injury rates in New Mexico without dramatically increasing our liabilities or imposing unreasonable implementation criteria. Labor and industry have worked together to find solutions that will work for our state. I am concerned that OSHA's proposed standard would negatively impact the successful methods and processes we have developed.

### Hazard Analysis

Doing a hazard analysis is not complicated. It takes time and most front line supervisors have other production responsibilities that make it time consuming for them to do an adequate hazard analysis. Most OSHA inspectors will require documentation of hazard analyses during an inspection. CSHOs don't accept 'its in my head'.

Even companies that have a full time safety officer will probably need to retain an ergonomic specialist. Typically, an ergonomic specialist costs \$100 to \$175 per hour. OSHA estimates only 10% of the companies will have to hire a specialist for about \$1000. Estimates I received from ergonomic specialists ranged from \$2000 for a simple walk through to \$25,000 to do a hazard control analysis. Any equipment purchase or process modifications or training would be separate.

The proposed standard establishes a requirement that hazard analysis be completed within one year. Most hazard analyses and control implementation projects have taken 16 months to three years to complete. It is a lot more complicated than just buying ergonomic chairs and tables.

### Equipment Purchases

Modification of a manufacturing production line is usually more complicated and costly than just buying ergonomic tables and chairs. Design and purchase of robotics can be extremely expensive. Purchase of hydraulic lifts or other types of mechanized lifting equipment is more than \$250.

I have included in Appendix VI a case study provided to me by Mr. Scott Seydal of Sitmax, Inc. While the company described in this case study had approximately 1000 employees, the Poly Prep area with 20 employees reported a higher incidence of strains and sprains than other parts of the facility. Lost work days was not significantly different from other areas of the facility. The company implemented an ergonomic evaluation and control program. The project required approximately 16 months to complete and cost \$1,400,000. Pallet positioners, conveyors and breaking tables alone cost \$150,000. Significant modifications to the building were required. The changes did eliminate MSDs and production capacity was doubled without an increase in headcount.

Obviously, the company could afford to spend the amount of money invested in changing the process. However, it took more than 12 months. While the project was probably justified by the increase in production, was it economically feasible to spend that amount of money to address MSD issues for 20 employees? A small manufacturer might have the same type of production design issues and have to spend at least \$150,000 in lifting equipment without the increase in productivity.

Jim Casano, Health and Safety Manager for Intel, Rio Rancho told me that they spend approximately \$3000 per office to purchase and install an ergonomically sound office system.

David Sweet, an attorney with Payne and Fears law firm in California told me that one of his clients that manufactures electronic parts has spent approximately \$6000 per station that seats 2 employees.

Even the purchases for small, home offices are estimated to be approximately \$600 (see Case Study included in Appendix III). Many Americans are working in their homes. Employers may be determined to be responsible for the ergonomic soundness of their workstations if MSDs are identified.

None of my sources reported spending less than \$3000 in direct costs to modify workstations located in manufacturing facilities. My sample size is small and limited to the electronics and semiconductor industry.

### Training Costs

OSHA's training assumptions impose a very significant technical knowledge requirement down to the front line supervisor level. The proposed standard implies that front line supervisors are going to have the

technical knowledge not only to train employees in the requirements of the standard but also to recognize potential medical conditions. These supervisors are also expected to evaluate interactions between job tasks and human physiology. Most of the ergonomic issues in the workplace are common sense situations (if it hurts, don't do it). It is unreasonable to assume that front line supervisors will have the time or knowledge to devote specifically to ergonomic issues in addition to their production and supervisory job responsibilities.

The costs of training will range widely. Managers and supervisors will probably have to attend off site classes or hire ergonomic trainers. Off site training will require more than 2 hours and if the classes are out of town, travel and lodging costs will be incurred in addition to tuition. Intel estimated it cost approximately \$1300 to train front line their supervisors to recognize potential MSDs.

Employees will require training, too. While the amount of time to train employees will not be as extensive as that of supervisors, it will be more than one hour.

#### Medical Costs

I did not have time to collect information on the potential impacts to medical costs. However, there will be increased costs associated with implementation of this standard. I envision that many employers will implement extensive pre-employment evaluations. The medical costs for initial diagnosis of MSD may be covered by most workers' compensation plans if the injury is determined to be totally work-related. However, the issues associated with aggravation of non-work related injuries or illnesses and job tasks will have to be addressed by someone in the insurance industry. Minimally, workers' compensation rates could go up as incidence of claims increases.

In New Mexico, the costs of getting access to ergonomic specialists will initially be expensive. Rural small manufacturers will have to send employees to urban centers (in some cases, hundreds of miles away). The costs associated with travel and lodging will add to costs.

Legal fees associated with differences of opinions about work relatedness of injuries and illnesses, dispute resolution of health care provider and treatment options are not included in OSHA's estimates.

#### Program Costs

Cost estimation of implementation of a full program is difficult. OSHA indicates that they do not believe all industry sectors will be equally impacted and that the requirements are implemented only upon the presence of an MSD. There are a significant number of variables industry to industry, economies of scale (large company vs. small company), location (urban vs. rural). National and international economics also influence business.

Based upon conversations with Jon Cassano, Safety Manager of Intel Corporation, Rio Rancho, Intel implemented an aggressive ergonomics program in 1990. Their total costs for implementation to date are approximately \$4,000,000. It took Intel approximately 3 years to implement their ergonomics program. The spike in implementation costs occurred in 1992 and they began to see cost benefits in 1993 to 1994. It took a significant amount of time, and they did experience '1<sup>st</sup> year medical student syndrome' when they began implementation. However, evaluations were not able to identify or attribute medical causality to work or non-work activities in approximately 30% of the MSD cases. Their current annual cost of maintaining this program is approximately \$500,000 for a facility of approximately 3000 employees.

In Appendix V, I have attempted to illustrate the process a small manufacturer will probably go through to implement this standard. The example provided is based upon my experience of the process and procedures company's go through to implement any new regulatory standard. I have been extremely conservative in my estimates. Table I includes a direct comparison of OSHA's estimates with my estimates of implementing this standard in a typical small manufacturing company. The assumptions and basis of costs are included in Appendix V.

In five of the requirements, OSHA's time estimates are totally unrealistic with the operations of human organizations. Overall, OSHA's time estimates are about 1/2 what I expect they will actually be upon implementation. The OSHA estimate does not include the organizational communication, analysis, discussion and decision time.

The elements outlined by OSHA are not as compartmentalized in most human organizations. Setting up a program and setting up a reporting system occur usually simultaneously. Employee training is typically done at date of initial hire and annually, thereafter. Most companies do not provide specific training to one employee after they have been injured. If a company has a training program, prevention is emphasized rather than treatment.

In terms of cost, OSHA's estimate includes only \$1000 for a consultant in 10% of the impacted companies. There are many specialties in safety consulting. A company requiring training, job hazard analysis, and hazard control engineering will probably need separate consultants for each of those specialties. One consulting firm may be able to provide all of the technical assistance but each specialty requires different training and knowledge. And, I seriously doubt a front line supervisor with one day of training will have all the necessary understanding and knowledge to solve these complicated types of problems.

The significant differences in costs between OSHA and my estimates in Table 1 primarily are associated with costs of external consultants, time associated with meetings, equipment purchases, and employee replacement costs. OSHA's estimate is approximately 1/10 what I estimate it will take to implement this standard. That is consistent with my experience in implementing many OSHA standards in the past 15 years.

Table 1. Comparison of OSHA and SER Estimates

Requirement	OSHA estimate		SER estimate	
	Time (hrs)	Costs (\$)	Time	Costs (\$)
Managerial Training	6	146.52	22.5	999.45
Initial Set Up	23	391.86	6	146.52
Set up Reporting System	23	391.86	*	
Reporting MSD	1.5	30.25	4.5	97.15
Employee Information	11.5	159.30	60	2555.80
Manager Training Full	24	293.04	16	340.42
Hazard Control Program	33	1391.86	60	11391.00
Job analysis	6	121.05	4	1872.21
HCE or admin costs	*	2400.00	80	31274.40
Employee Training	9	194.31	*	
Administer Medical Management	3	73.26	20	3661.05
Medical Removal	*	1036.00	16	19011.00
Total	134	\$6629.31	289	\$71,349.00

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#### 4. SPECIFIC PROVISIONS OF THE DRAFT STANDARD

The following comments are directed at specific provisions in the draft standard. I have not attempted to make comments in each provision because the issues have already been discussed in the previous parts of my testimony.

##### **1910.500 Does this Standard Cover Me?**

The definitions and applications are not clear.

##### **1910.501 What is the Purpose of this Standard?**

##### **1910.502 What is my Basic Obligation?**

##### **1910.503 Management Leadership and Employee Participation**

##### **1910.504 Hazard Identification and Information**

##### **1910.505 Job Hazard Analysis and Control**

###### **1910.505 (b) (2)**

Asking employees to respond to an affirmative method, especially if they will potentially receive special benefits, places employers in a position of moral risk. It could result in employees having "First Year Medical Student Syndrome"...the individual perceives that the signs and symptoms indicate a more serious condition than may actually exist.

Self-reporting systems, used extensively by Workers' Compensation programs around the country, seem to work extremely well in extinguishing workplace injuries and illnesses. This system requires the employer to post notice of reporting requirements and then the employee has the responsibility of notifying the employer of any potential signs or symptoms of ergonomic problems. Employers and supervisors who have adequate training can then determine the appropriate method to evaluate the job tasks or employee's need for medical attention under the OSHA reportable injuries and illness requirements.

Employers beginning participation in the Welfare-to-Work programs could be discouraged from participating if their fears about increased Workers Compensation costs are exacerbated by this requirement. This requirement alone could sabotage the entire welfare reform program.

##### **1910.506 Training**

Already addressed

##### **1910.507 Medical Management**

This entire section conflicts with NM State Workers' Compensation law, impinges on Doctor/Patient confidentiality requirements, violates due process of law for taking of property, and supercedes many union-employer contracts. In addition, this section's requirements put doctors at risk to being potential assessors to fraud, undermines health care provider choices, provides incentives for employees to not return to work, and opens up incredible employer and medical liabilities. The requirements in this section are also probably beyond OSHA's authority and mandate per the OSH Act.

###### **1910.507 (b)(1)**

The employer is required to provide prompt access to health care professionals for evaluation, treatment and follow-up before a threshold of determination has been made regarding whether the MSD is work or non-work related. The employer then has an unrecoverable expense of the

medical evaluation costs without any due process of law or effective recourse in the courts if the MSD is determined to be non-work related or a medical cause cannot be identified.

*1910.507 (b) (2)*

The employer must provide information to the health care professionals about their manufacturing processes. This type of information may require divulging trade secrets or proprietary information about their equipment or processes without any protection of this information.

*1910.507 (b) (3)*

Getting a written opinion from the Health care professional and ensuring that the employee is also promptly provided with it potentially violates doctor/patient confidentiality, particularly if the MSD is non-work related. This requirement also violates NM case law (Church's Fried Chicken vs. Hansen). It potentially puts doctors in a position of contributing to fraud if the employee is not totally honest about their private life style practices and activities.

*1910.507 (c) (2)*

In many small-manufacturing organizations, there are no temporary alternative duties or jobs available for an employee during the recovery period. NM Workers' Compensation law does not mandate that an employer provide alternative job assignments if the employee is determined to be medically unfit to perform their job. In addition, the employer does not have to keep that job available for that employee if the recovery period is excessive.

*1910.507 (d) (1)*

The HCP's written opinion does not include a requirement of a statement of medical causality. The MSD is presumed to be work related and sets up a situation of irrebutable presumption. No evidence to the contrary can prevail. Particularly if the MSD is non-work related or undeterminable regarding cause, this is a due process violation of the employer's rights under the Workers Compensation Act of NM.

These medical evaluations are also very expensive and may be beyond the financial resources of many small business manufacturers. In addition, finding a pool of experienced and qualified HCP's may be very difficult in smaller communities. Sending employees off to other cities to receive adequate evaluation and care would also tax a rural small manufacturer's financial resources.

*1910.507 (d)(2)*

There are several potential conflicts regarding protecting the employee's privacy and confidentiality after a medical management evaluation. Specifically, every doctor would be at risk of being an accessory to fraud if they do not report pre-existing MSD injuries or illnesses. In addition, even if the MSD is not work related, the injury or illness will impact the employee's ability to perform their currently assigned job responsibilities. This could result in a catch-22 situation for the employer, HCP and employee.

*1910.507 (e)(1)*

Again, if there are no alternative jobs available for an employee or the work restrictions during the recovery period prevent the employee from performing their assigned tasks, NM Workers' Compensation law does not require the employer to keep the employee on the job. Under NM WC law, the employer is only required to rehire that employee for a job they are medically qualified to perform. Employers are not required to hold a job position open for an employee.

In fact, this requirement may supercede many union-employer contracts currently in place regarding job position assignments and replacement requirements.

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## 1910.507 (e) (2)

The maintenance of an employee's total normal earnings, seniority, rights and benefits are beyond OSHA's regulatory authority. This provision is in direct violation of state constitutional authority and the Workers' Compensation laws of NM.

In addition, this requirement may be in violation of many union-employer contracts currently in place regarding compensation requirements.

Most Workers' Compensation programs at the state level already have incentives in place to return workers to light duty.

## 1910.507 (e) (3)

Health care provider choice is a pivotal issue in Worker Compensation law and liability. This requirement creates a duty on the part of the employer to provide HCP and follow up during the recovery period. There are many questions regarding the reasonableness and necessity of treatment of ergonomic injuries and illnesses. This is one of the most litigated issues in Workers' Compensation law. I doubt many small businesses will have the financial resources to defend themselves or the doctor's choices/recommendations if there is a disagreement with the employee.

## 1910.507 (f)

This entire section regarding how long an employee must be retained/reassigned or benefits provided conflicts with NM State Workers' Compensation law.

## 1910.507 (g)

The outlined obligations for employee earnings acts up a potential incentive for an employee to not return to work from an ergonomic injury. In New Mexico, an employee will receive 66 and 2/3% up to a job-described cap of their salary, nontaxable, while on Workers Compensation disability leave. The employer is required to pay the remaining 33 and 1/3% of the employee's salary and benefits at a taxed rate. The employee would have an incentive to remain out on disability leave of approximately 22% (the difference of taxable income vs. non taxable income) of their take home pay.

For example:

Employee's normal salary is \$10/hour. Total salary for the 40-hour week is \$400.  
 Employee's normal take home is \$300 (25% deducted for FICA, FLTA, SUTA, etc.)  
 If out on disability leave, employer would receive \$266.69 (66 2/3% of nontaxed salary)  
 With the proposed OSHA requirement, employer would have to give employee an additional \$99.98 (\$400-\$266.69= \$133.31, deducting 25%\* (\$33.33) for taxes making their take home while on disability \$366.67 (\$266.69 + 99.98). This is an automatic 22% raise while out on disability for an ergonomically related injury/illness. This is a very lucrative incentive to stay out on disability leave for 6 months (an approximate salary increase of \$1600)

\*Using assumption of flat tax, marginal tax rate is lower than cumulative tax rate.

The requirements of paragraph 3 of this section (income from other employers) are probably not available to the affected employer if the employee chooses not to reveal other employment compensation. However, under established case law in NM, workers' compensation payments are based upon all income sources of an employee and are charged against affected employer's policy. This could result in even higher financial impacts to an employer and benefit the employee by providing additional incentives to stay out on ergonomically related injuries.

## 1910.508 Program Evaluation

Developing effectiveness methods is going to be very difficult. There is significant room for disagreement about what 'effective' means. I am assuming that the incidence of ergonomic illness

and injuries decreases. However, what if an employee never gets better (as is found in approximately 30% of the cases). Would the employer be placed in a situation of having to fire/release an employee if they never get better just to reduce their outcome measure? What if it takes many years to determine what effectiveness measures work? What if, due to individual variability, the effectiveness measures are appropriate for a particular set of employees but not applicable for a job set? Can we have different sets of effective measures for different job classifications?

I can also foresee some significant statistical measurement problems with small businesses with less than 200 employees. Do the effectiveness measures have to be statistically significant? Or just the incidents decrease? There could be some serious between group and within group problems for statistical comparison in small companies. Are we looking at nominal, interval or ordinal scale data? Parametric or nonparametric analyses? What if we find no correlations between work related tasks and the incidents of MSDs? (Very possible in small sample sizes like small companies). And, correlation is not necessarily causation when there are multifactor situations.

Many of OSHA's previous standards compensate for age related nuances (for example, the Hearing Conservation Standard). There is no such allowances included in this standard and it will be a critical issue for program evaluations. There will also be some concerns in program evaluations for employee's with pre-existing conditions (such as arthritis, osteoporosis)

#### 1910.509 What Records Must I Keep?

The distinction of when an ergonomic illness or injury is recordable is very unclear. For example, is it recordable when the employee responds in the affirmative to signs or symptoms? Or, after it has been determined that the illness or injury is work related? There is no information regarding lost workdays

It is also difficult to evaluate this section because the Appendix B was not included with my package.

#### 1910.510 When Must My Program Be In Place?

The implementation effective dates may not be realistic for implementing permanent controls, specifically after the standard goes into effect. There is also no out clause for what to do if there are no feasible permanent controls. This may be a significant issue for the home health care people who have to lift patients from beds

Based upon current experience of companies, there would never be a time that the program would be discontinued

Implementing a full ergonomic program will probably take at least one year if no major equipment or process modifications are required. Most projects require at least 16 months and range up to three years before they are fully implemented and effective.

Start up companies will have even more difficulty implementing ergonomic programs within one year. And, it will be difficult to predict ergonomic issues until the facility is in full production.

#### 1910.511 Where Can I Get More Information?

#### 1910.512 What are the Key Terms in the Standard?

## 5. Summary and Recommendations

The potential impact to small business, in fact all manufacturers, is enormous. OSHA's estimated costs of implementation are significantly out of range of to date experience with company's implementing ergonomics programs under the voluntary programs in place since 1992. Many of the technical aspects of this proposed standard are not based upon sound medical science or proven behavioral science based safety experience. Many small businesses will not be able to afford compliance and will be forced out of business (particularly companies with ISO 9000/14000 certifications). The remaining companies that attempt to implement will have to raise the price of their goods and services to a level that may make them noncompetitive in the US and definitely the global markets. The potential conflicts with other regulatory requirements (EEOC, Worker's Compensation, ADA, individual privacy rights) put all businesses in a 'damned if you do, damned if you don't' position. Finally, implementation of this proposed standard could potentially undermine the significant progress made in Welfare Reform.

Providing ergonomically safe work places is important. BLS statistics indicate ergonomic illnesses and injuries are decreasing. OSHA could instead provide an intensive and extensive training program materials (training tapes, publications, public service announcements) or training grants for small businesses owners and employees to be distributed through existing state OSHA programs, small business development centers, professional safety/industry organizations and other points of access such as the internet. If there continues to be 'bad players', OSHA can still cite companies under the General Duty Clause requirements of the OSH Act. We really need information.

The training materials should be specific. Using BLS and OSHA statistics, prepare training tapes and booklets specific to job tasks clearly having ergonomic hazards. For example: computer work stations, materials handling, poultry processing, etc. General tapes would probably not be as helpful as specific task or industry sector training. Emphasis on prevention of ergonomic injuries should be stressed.

In addition to training, providing a tiered approach to responding to ergonomic illnesses and injuries would be more cost effective for small businesses. Instead of having to implement a whole program based upon one individual displaying signs or symptoms, all the owner/manager to work with individuals. Base the requirements for implementation upon Lost Work Days. This can be addressed in the revisions to Recordable Illnesses and Injuries Log (OSHA 300 form-coming soon).

Perhaps equipment purchases associated with compliance could be an allowable business deduction rather than a capital expense, as recommended by Dr. Tuomi. Or perhaps some form of tax benefit can be determined for businesses making these investments. Access to no or low interest loans may be necessary for some businesses.

OSHA should not specify the medical requirements. That should be left to the medical professionals. Especially when the MSDs are related to personal non-work related conditions or habits that are effected by job responsibilities.

OSHA should not specify benefits and safety requirements. That should be left to the Workers' Compensation and insurance industry sectors. There are significant state's rights issues involved that are probably outside of OSHA's authority.

In this standard, OSHA has assumed that one type of management structure is pervasive through the US. There are many types of employer and employee relationships. There are huge differences of opinions about the proper methods and styles of interacting with employees. OSHA should avoid prescribing employer/employee relationships.

This standard sets up so many potential conflicts with other regulatory responsibilities that business owners have to operate within. This standard, as it currently is presented, could have a deleterious effect on the economic health of small businesses in our country without successfully addressing the issue of ergonomic hazards.

6. Acknowledgements

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# Appendix I

L 0392

**LEGAL ANALYSIS IN AID OF SMALL BUSINESS REGULATORY FAIRNESS ACT  
REVIEW OF OSHA WORKING DRAFT OF PROPOSED  
ERGONOMICS PROGRAM STANDARD**

**Review of provisions of draft standard**

by

**Robert M. Aurbach, General Counsel  
New Mexico Workers' Compensation Administration**

The following observations are offered to provide Small Business Regulatory Fairness Act ("SBREFA") panelists with a legal analysis of the provisions of OSHA's working draft of proposed ergonomics program standard, from the perspective of an experienced workers' compensation legal administrator and theorist. Although the views expressed and conclusions reached are my own, the remarks that follow have been reviewed by other lawyers and associated professionals in the workers' compensation field and edited to reflect the consensus opinions.

Standard 1910.500A3 sets the tone for much of what follows. The standard applies to any employer who has a job where a work-related musculoskeletal disorder ("WMSD") is reported. A WMSD is defined as a physical condition that is recordable on OSHA 200 logs that occurred on a job where WMSD hazards are present. The hazards present must be "reasonably likely to cause or contribute to the type of MSD reported. A significant part of the reporting in employee's regular job duties must involve exposure to these WMSD hazards. [Emphasis added.]

The objectionable part of the standard is the provision that mere contribution to a WMSD is sufficient to invoke the standard. While causality to a reasonable degree of medical certainty is a well-established standard which doctors are used to invoking and courts are used to applying, the term "or contribute to" has no established legal meaning and doesn't help the employer fix the problem. If because of a prior injury that left me with a two level disc herniation, I throw my back out while playing with my kids over the weekend, sitting at my desk and working at the computer on Monday will occasion an exacerbation of the symptoms of my back injury. Under

this definition, the increased symptoms that I feel on Monday at work will result in my employer being covered by the Proposed Standards. My employer incurs liability for medical care beyond that which is provided by existing medical insurance and without my having to satisfy any co-pay requirements.<sup>1</sup> But for the pre-existing injury, the ergonomic conditions at the office might be acceptable. From the point of view of the employer, the injury does not represent the presence of a workplace hazard. However, the Proposed Standard leaves open the interpretation that the health care provider's opinion, generated as a result of the evaluation, is controlling.

The "or contribute to" standard invites a sympathetic evaluating health care professional ("HCP") to find contribution on no more evidence than the worker's present medical condition and the self-reported (and self-edited) medical history. Once the opinion is rendered the employer is afforded no opportunity to contest the HCP's finding of the presence of a WMSD. Since such a finding leads to substantial economic obligations on the part of the employer, the employer's property rights are necessarily involved. In the absence of any provision for evidence to be presented by an employer rebutting the presumption of contribution, the presumption is irrebuttable. Irrebuttable presumptions are disfavored under federal law and the law of every state because they are generally held to be offensive to the Due Process clause of the constitutions of the United States and the individual state.

Section 1910.500(b)(3) provides that the standard does not cover construction or agricultural activities. Given the reasons for the proposed rules cited in the Preliminary Initial Regulatory Flexibility Analysis, the omission of these industries is probably arbitrary and capricious. It is well-documented that repetitive motion trauma is extremely prevalent in construction and agriculture. Indeed, the statistics cited by OSHA in justification for the proposed rule have not been shown to exclude the data from these industries, leading to substantial questions concerning the validity of data forming the basis for the regulation. Since repetitive motion traumas are well-documented in construction and agriculture,<sup>2</sup> the exclusion of

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<sup>1</sup>This result ignores the substantial evidence that managed medical care and patient co-pay provisions significantly reduce patient misuse of medical health care resources.

<sup>2</sup>The term is undefined. One wonders about the utilization of a massage therapist for injuries requiring surgical repair. Or an aromatherapist.

<sup>3</sup>See, e.g., Hernandez, et al v. Stuyvesant, F.D Ct. 1996 (Brief-in-Chief of Plaintiffs in opposition to Motion for Summary Judgment)

these industries is arbitrary and capricious and fails the basic standard of review for regulatory actions.

Section 1910.505(b)(2) requires employers covered by the standards to ask employees whether they are experiencing signs and symptoms of WMSDs, whether they are having difficulties performing the physical work activities of the job and which physical work activities they associate with the problem. There are significant difficulties with this approach. As noted in the "cost of the draft ergonomics program standard" section of the Summary of Cost Benefits and Impacts, an initial "blip" in reporting is expected. This phenomenon is verified by anecdotal evidence from industry and is attributable to two causes. First, it is well-known that increased information concerning physical ailments leads to hyper-awareness of physical symptoms. The phenomenon is known as "the first year medical student syndrome." It is also well-documented in the workers' compensation industry that the incidence of work injury reports increases with the occurrence of adverse economic conditions within an industry, seasonal downturns in the workload, layoffs and adverse personnel actions unrelated to any injury. When workers feel threatened, they have a greater tendency to report injuries as a mechanism for preserving their income. Thus, the reporting "blip" may be attributable to unrelated factors already built up in the workplace which find an avenue for expression through the Proposed Standard. Moreover, treatment seen as favorable by an employee in response to an injury claim has a tendency to increase the frequency of injury reports by co-workers in the same workplace. In the workers' compensation industry, the terms "green [referring to the color of money], poultice" and "red pickup disease" [referring to the utilization of lump sum monetary awards for injuries] have been used to describe this phenomenon. Collectively, these factors create what is known in the insurance industry as a "moral risk" of loss, and are exacerbated by 505(b)2.

Moreover, Section 505(b)2 creates difficulties in other programs. It is interesting to note the congressionally mandated welfare reform legislation (the Personal Responsibility and Work Opportunity Reconciliation Act of 1996), as implemented by the various states, requires job placement within five years for virtually all current welfare recipients. These programs have met with considerable initial employer resistance due to a perception that current welfare recipients, as a class, are more likely to report on the job injuries in the workplace than the normal population. The effect of Section 505 questioning of employees in this class will almost certainly heighten the

perception that former welfare recipients are more prone to reporting workplace injuries by decreasing employer willingness to hire. The perception, even if irrational, will raise a substantial additional barrier to implementation of welfare reform legislation. This substantial additional societal cost of interference with welfare reform is not included in the Summary of Cost Benefits and Impacts despite the near certainty of its occurrence.

Section 1910.507 provides the most significant difficulties with respect to the workers' compensation system. 29 U.S.C. 653(b)(4) provides that,

"[n]othing in this chapter shall be construed to supersede or in any manner affect any workers' compensation law or to enlarge or diminish or affect in any other manner the common law or statutory rights, duties or liabilities of employers and employees under any law with respect to injuries, diseases or death of employees arising out of, or in the course of, employment."

Section 507 does far more than "in any manner affect any workers' compensation law." All state workers' compensation laws have provisions declaring them to be the exclusive remedy for on the job injury. The Proposed Standard creates additional remedies for the worker injured in the workplace, and by that act alone, violates every state workers' compensation law at the most fundamental level. Indeed, it is clear from 29 U.S.C. 653 (b) (4) that Congress did not authorize OSHA to promulgate regulations impacting post injury treatment of workplace injuries at all.

With respect to treatment of WMSDs in the covered industries, the Proposed Standard renders the various state workers' compensation systems irrelevant and effectively nullifies them. It is not an overstatement to say that where the Proposed Standard applies, it nationalizes workers' compensation law. OSHA preemption of state workers' compensation laws was explicitly prohibited by Congress.\*

To understand this phenomenon, it is necessary to understand the theoretical basis of workers' compensation laws in general. Classic analysis of workers' compensation laws rests upon a mutual renunciation of rights, duties and obligations on the part of the employer and the worker. This mutual renunciation is a product of statute and creates a wholly artificial system.

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\*See, Ben Robinson Co. v. Texas Workers' Compensation Commission, 934 S.W.2d 149 (Tex. App., 1996) and Lunde v. Winnebago Industries, Inc., 299 N.W.2d 473 (Iowa, 1980).

subject to judgments by the individual state legislatures concerning public policy. The enacting legislation requires that every employee of every employer covered by the workers' compensation law is deemed to be a participant in the system.

Under workers' compensation laws, the employee gives up the right to sue the employer for unlimited damages for injuries taking place in the course and scope of work. The employer gives up all defenses to claims of workplace injury. Both receive the certainty of a known, and limited, benefit structure and a quick, cheap resolution of disputes. Indeed, it can reasonably be said that workers' compensation is a no-fault system. Benefits granted to workers who are injured in the course and scope of their work are not designed to wholly compensate the worker for his injury, but rather to provide medical treatment and subsistence to the worker until the worker is able to return to work. The importance of the return to work objective cannot be overstated. The entire system of workers' compensation is designed around the proposition that the benefits to be provided are designed to provide the medical treatment and economic inducement for the worker to return to productive employment. Any disruption of this benefit pattern strikes at the very theoretical basis for workers' compensation legislation in general.

It is universally recognized that the workers' compensation system must balance the level of benefits to workers with the costs imposed on employers with a provision of those benefits. If the benefit level is too high, workers' compensation insurance becomes prohibitively expensive, suppressing wages and economic development. If it is too low, social injustice results. Thus, any system which externally interferes with the balance of benefits to workers and costs to employers necessarily interferes with the workers' compensation system.

The majority of states provide total disability benefits at the level of 66 2/3% of the average weekly wage of the worker. This benefit level is predicated on the fact that workers' compensation benefits are not subject to taxation. Accordingly, payment at those benefit levels is generally considered to be full wage replacement, subject to certain statutory limitations.<sup>3</sup> Within every workers' compensation system are provisions for determining the degree of physical disability experienced by the worker at each stage of the worker's recovery and compensating the

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<sup>3</sup>Most workers' compensation systems have a formula for determining the maximum benefit that must be paid by any employer. The reason for this capitation is a combination of actuarial predictability for insurance underwriting purposes and the elimination of prohibitive insurance premium burdens on businesses employing highly skilled and trained individuals.

worker only for that percentage of the impairment of their work ability that is due to their present medical condition. Thus, virtually every state has a schedule of benefits that pays certain maximum allowable benefits for the loss or loss of use of scheduled members or organs of the body. For impairments to the functioning of the body as a whole, every workers' compensation system has a method for benefit calculation based upon the degree of total body impairment at each stage of recovery. The benefits paid to workers under workers' compensation systems are subject to periodic review and adjustment to reflect compensation only for that degree of impairment of the functioning of the body that the legislature has determined to be appropriate, given the balance of employee rights and employer responsibilities that it has adopted.

The provisions of Section 1910.507(e)(2) utterly conflict with these universal features of workers' compensation programs. If a worker is to receive their full wages without regard to the degree of physical impairment that he or she is experiencing due to a workplace injury at a particular point in their recovery, then the balance between worker rights and employer responsibilities has been utterly abandoned. Moreover, it is clear that a worker who is receiving two-thirds of their salary tax free and the remainder of their salary subject to taxation will always receive more take home pay for receiving disability than for returning to work. Thus, the medical removal protection provisions of the Proposed Standard starkly conflict with the return to work policy that underlies all workers' compensation legislation.

It is argued in the "alternatives to the draft proposed standard" section of the Preliminary Initial Regulatory Flexibility Analysis that the medical removal protection provisions are necessary to encourage full reporting of WMSDs. As noted above, these provisions create a "moral risk" of over reporting of WMSDs. However, the lofty intentions offered to justify the medical removal protection provisions cannot overcome the statutory prohibition against conflict with workers' compensation systems.

Nor is the employer's obligation to make up full salary the only conflict with state workers' compensation systems. Every state workers' compensation system contains provisions requiring that the injured worker carry the burden of proof that his or her injury was suffered in the course and scope of their work. Medical causality must be proven or the workers' claim is dismissed. As noted above, the draft Proposed Standard attaches whether the injury was caused by a condition of work or when a condition of work merely contributes to the injury. The burden

of proof on the worker has been removed. The burden of proving that an injury was not caused by, or contributed to, by workplace conditions is shifted onto the employer, but the burden of proof cannot be carried since there is literally no mechanism contained in the text of the Proposed Standard for such a proof to be offered nor for disputes concerning causality to be adjudicated. Thus, the workers' compensation system of no fault liability upon proof of causality has been supplanted under the Proposed Standard, with a system of absolute liability on the part of employer.<sup>6</sup> This, too, violates 29 U.S.C. 653(b)(4).

Every workers' compensation system has a mechanism for resolution of disputes concerning the benefit entitlement of the worker given their particular stage of recovery from injury. These systems will be rendered irrelevant if every worker receives full wages regardless of their degree of recovery. Under the Proposed Standard, disputes concerning the degree of physical impairment a worker suffers are reduced to disputes concerning which pot of money (the employer's or the workers' compensation insurer's) the worker will be paid out of at a particular moment. Interestingly, the result is utter change in the relationship between an employer and a workers' compensation insurer. Presently, the insurer acts as an advocate for an employer in an agency capacity. In the vast majority of instances, the interests of an employer and an insurer are the same since they both stand to gain from the limitation of benefits paid to workers to those that are legitimately required by law. Under the Proposed Standard, the insurer and employer will become adversaries. The worker will be paid the same no matter what the outcome of workers' compensation litigation. The insurer stands to gain, at the employer's expense, if the injury is determined not to be a workers' compensation injury, and vice versa. Accordingly, the Proposed Standard will abrogate the provision of every existing insurance contract requiring that the insurer

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<sup>6</sup>OSHA officials have argued that the decision that a workplace hazard exists belongs to the employer. While this is literally true, the employer contests the opinion of the evaluating HCP at his or her risk of citation for a violation of the Proposed Standard. If OSHA agrees with the HCP (which would, presumably, frequently occur) the employer's non-expert opinion will be ignored and the employer penalized. This provision of the Proposed Standard ignores the well documented phenomenon of disputes between HCP's concerning work relatedness and extent of injury and assumes, counter-factually, that all HCP's would arrive at the same opinion after an evaluation. It substitutes an ill defined mechanism that gives the employer no risk free mechanism for contesting work relatedness in good faith for a workers' compensation system that has dealt with these issues successfully for over 70 years. Ironically, the Proposed Standard would also allow the choice of HCP's to assume undo significance. There is no provision for evaluating HCP's to meet any qualification criteria, and one possible result is that HCP's who are objectively unqualified to render an opinion on ergonomic issues may nonetheless control employers' behavior in implementing the Proposed Standard.

put up a good faith defense on behalf of the employer.<sup>7</sup> This certainly will alter the "common law or statutory rights, duties or liabilities of employers"...under any law with respect to injuries, diseases or death of employees arising out of, or in the course of, employment."<sup>8</sup>

The medical management provisions of Section 1910.507 also significantly conflict with state workers' compensation laws. Section 507(b)(1) provides that an employer must provide a prompt evaluation by a health care professional upon report of a WMSD. No consideration is given to the choice of health care provider, the reasonableness and necessity of diagnostic testing done at that stage, a mechanism for either party to obtain a second opinion or any mechanism for resolving differences of opinion between health care providers. The complex of issues is strictly regulated under workers' compensation laws due to the impact of medical opinions on the outcome of the case and the fact that HCPs often disagree about the cause and extent of injury. The fact that the employer must pay for the evaluation also conflicts with the provision of workers' compensation systems which provide that the economic burden of medical care falls upon the employer only in the event that the worker can carry their burden of showing that their injury occurred in the course and scope of employment. Moreover, the health care provider must be provided, pursuant to 507(c)(1)(4) with descriptions of the employee's job and opportunities to conduct workplace walk throughs. While the beneficial impact of such information flow cannot be doubted, the exposure of trade secrets, confidential and proprietary information and processes is inevitable. Thus, the employer's right to protect its intellectual property is abrogated by the Proposed Standard, in derogation of the employer's common law rights and in violation of 29 U.S.C. 653(b)(4). Moreover, the impact of walk-throughs upon facilities where security is a

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<sup>7</sup> Alternatively, the insurer can meet its contractual requirement by hiring separate counsel for the employer to fight against the insurer's position. The costs of this kind of increased litigation are not factored into the Summary of Cost Benefits and Impacts.

<sup>8</sup> Contrary to the assertion contained in the exposition of "Alternative one" in the Preliminary Initial Regulatory Flexibility Analysis, small employers are typically experience rated. A single shock loss claim can have such significant impact on the experience modification factor used in calculation of workers' compensation insurance premiums that an employer may be driven from the voluntary insurance market to the statutory insurer of last resort, at a premium that may have significant impact on the economic viability of the business. The suggestion that loss experience does not impact the loss prevention behavior of small businesses is erroneous and ignores significant factors, such as personal acquaintanceship with employees that significantly impact the behavior of small businessmen.

significant issue, such as bio-hazard laboratories, penal institutions and top secret facilities, cannot be overlooked.

The provisions of 507(7)(d) do not provide for the written report by the HCP concerning medical causality, or even medical contribution. Thus, no protection is contained in the Proposed Standard to distinguish between current ergonomic injury caused by workplace conditions and the existence of a prior unrelated injury or the existence of a current injury that occurred outside the workplace. The mere finding that the worker experiences symptoms of such non-workplace related injury while present in a workplace where the worker is exposed to hazards is sufficient to incur not only an obligation to "fix" the workplace, but also liability for medical treatment and wage replacement. Indeed, a literal reading of 507(d)(2) prohibits the HCP from reporting upon the existence of prior injuries or injuries that took place outside the workplace. This portion of the Proposed Standards violates provisions requiring proof of medical causality in every state workers' compensation law. Moreover, by prohibiting a doctor from reporting on the existence of prior injuries or injuries incurred outside the workplace, a health care provider may become an accessory or co-conspirator to workers' compensation fraud.

Every workers' compensation system has provisions concerning the control of choice of health care providers providing care to injured workers. Every workers' compensation system restricts the liability of the employer to those medical treatments which are reasonable and necessary for the recovery of the worker. The majority of workers' compensation systems contain significant controls to prevent cost shifting from other areas of health care to the workers' compensation system. The Proposed Standards violate these provisions of state laws by not only ignoring these issues, but by failing to provide any mechanism for resolution of disputes concerning them. Since disputes concerning the provision of health care constitute a significant proportion of the litigation present in virtually every workers' compensation system, the Proposed Standards are utterly inconsistent with state workers' compensation laws. In fact, it can be reasonably said that the medical care provisions contained in Section 507 constitute the establishment of national health care insurance for MSDs reported in the workplace, at employer expense. This substitution of a single national standard for the various existing state schemes is the very essence of the violation of 29 U.S.C. 653(b)(4) contained in the proposed standards.

Section 1910.512 purports to define a number of terms. Several of the definitions are problematic. "Known hazard" means "hazards in your workplace that you know are reasonably likely to cause or contribute to a WMSD." Included in the definition is "accepted WMSD workers' compensation claims". As noted above, workers' compensation is a no-fault system. A workers' compensation claim that occurred within the course and scope of work is compensable even if it was caused wholly by the employee and even if the employee's actions were taken in direct disobedience to the employer's work instructions. While the Proposed Standard's definition is consistent with the observation that the Proposed Standard creates an irrebuttable presumption that MSD symptoms experienced in the workplace are work-related, it presents employers with a Hobson's choice. If an employer denies compensability for a workplace injury caused solely by the negligence of the worker, the employer is subject to sanctions for bad faith in his or her administration of the Workers' Compensation Act. If the employer accepts the claim then all the requirements of the Proposed Standard become applicable to that employer even though the hazard that caused the accident was nothing more than the behavior of the worker. The latter result clearly violates the spirit, if not the letter, of state workers' compensation laws.

The definitions of "manual handling operations" and "manufacturing operations" are sufficiently loose that they will ensure a high volume of litigation. In New Mexico's workers' compensation system, the degree of disability attributable to a particular injury is dependent, in part, upon the specific vocational preparation (as a measure of transferability of skills) as set forth in the Dictionary of Occupational Titles for that particular job. A significant percentage of disability litigation in the workers' compensation system is devoted to resolution of disputes concerning which Dictionary of Occupational Titles job specification applies to a particular workers' circumstances. Given this experience, the definitions provided are far too subjective and incomplete to prevent significant litigation from occurring concerning the applicability of those terms to particular business enterprises and particular jobs within those enterprises. This Summary of Costs, Benefits and Impacts and the Preliminary Initial Regulatory Flexibility Analysis neglect to include the cost to employers of litigation surrounding the implementation of these standards. OSHA may presume that since they provided no mechanism for litigation of any issue by the employer that litigation costs need not be considered. However, given the substantial

property interest of employers that will be subject to taking by government action, the Due Process clause of the Constitution requires that the courts afford some opportunity for litigation of these disputes. Both the cost analysis and legal analysis of the Proposed Standards are deficient in their failure to recognize this constitutional imperative.

While a number of additional points of criticism of the Proposed Standards can be gleaned particularly from the Summary of Costs Benefits and Impacts and the Preliminary Initial Regulatory Flexibility Analysis, these points are merely an amplification of the general conclusion that adoption of the Proposed Standards spells an end to state workers' compensation systems as we currently know them, in derogation of 29 U.S.C. 653(b)(4). Analysis of the errors and omissions in the Summary of Costs Benefits and Impacts is probably better left to those who are more knowledgeable of the specifics of workers' compensation cost underwriting.<sup>9</sup>

The prevention of workplace ergonomic injuries and education and outreach efforts to employers and workers are unquestionably laudable goals. The Proposed Standards can be implemented without violence to state workers' compensation laws if three conditions are met:

1. The triggering formula for application of the standards to general industry must be modified. The concept of "contribution" to a WMSD must be eliminated or at least redefined in a manner that is capable of objective determination. Some mechanism for resolution of disputes concerning the causal relationship between a workers' symptoms and job conditions must be provided. Some reconsideration must be given to the inclusion of the construction and agricultural industries in this standard.

2. The medical removal protection provisions of Section 507 must be eliminated. Those provisions are so utterly in conflict with state workers' compensation laws that another approach to encouraging reporting must be found. The Proposed Standards render state law entirely irrelevant by guaranteeing the worker the same level of compensation regardless of the outcome of their compensation claim. The assertion that the Proposed Standards do not conflict with state workers' compensation laws, in derogation of 29 U.S.C. 653(b)(4) cannot be seriously maintained.

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<sup>9</sup>The assistance of the National Council on Compensation Insurance, the underwriting agency for a number of state workers' compensation systems, has been enlisted and will hopefully be available prior to the submission of written testimony on April 1, 1999.

3. The medical management provisions of Section 507 must be entirely reworked and considerably tightened. At a minimum, provision must be made for HCPs to report upon medical causality, the existence of prior injuries and any facts leading into the conclusion that the injury did not occur within the workplace environment. Any other result encourages fraud and places the medical community within significant liability risk. Provisions must be adopted governing the choice of health care provider to prevent disputes concerning medical control. Provisions must be adopted restricting the medical care provided to that which is reasonable and necessary for the medical recovery of the worker from the WMSD. Treatment for unrelated ailments, abuse of treatment and testing modalities and cost shifting from other areas of health care where costs are regulated must be prevented.

OSHA has recognized and documented a significant societal problem. With the above improvements in its Proposed Standard, it can legally and rationally proceed in its efforts to prevent ergonomic injuries in the workplace.

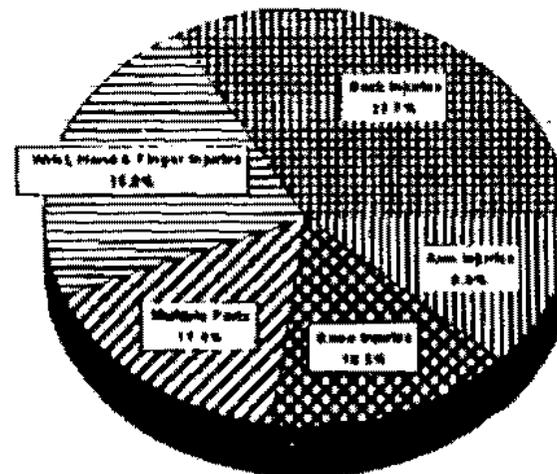
## Appendix II

L 0406

# ERGONOMICS

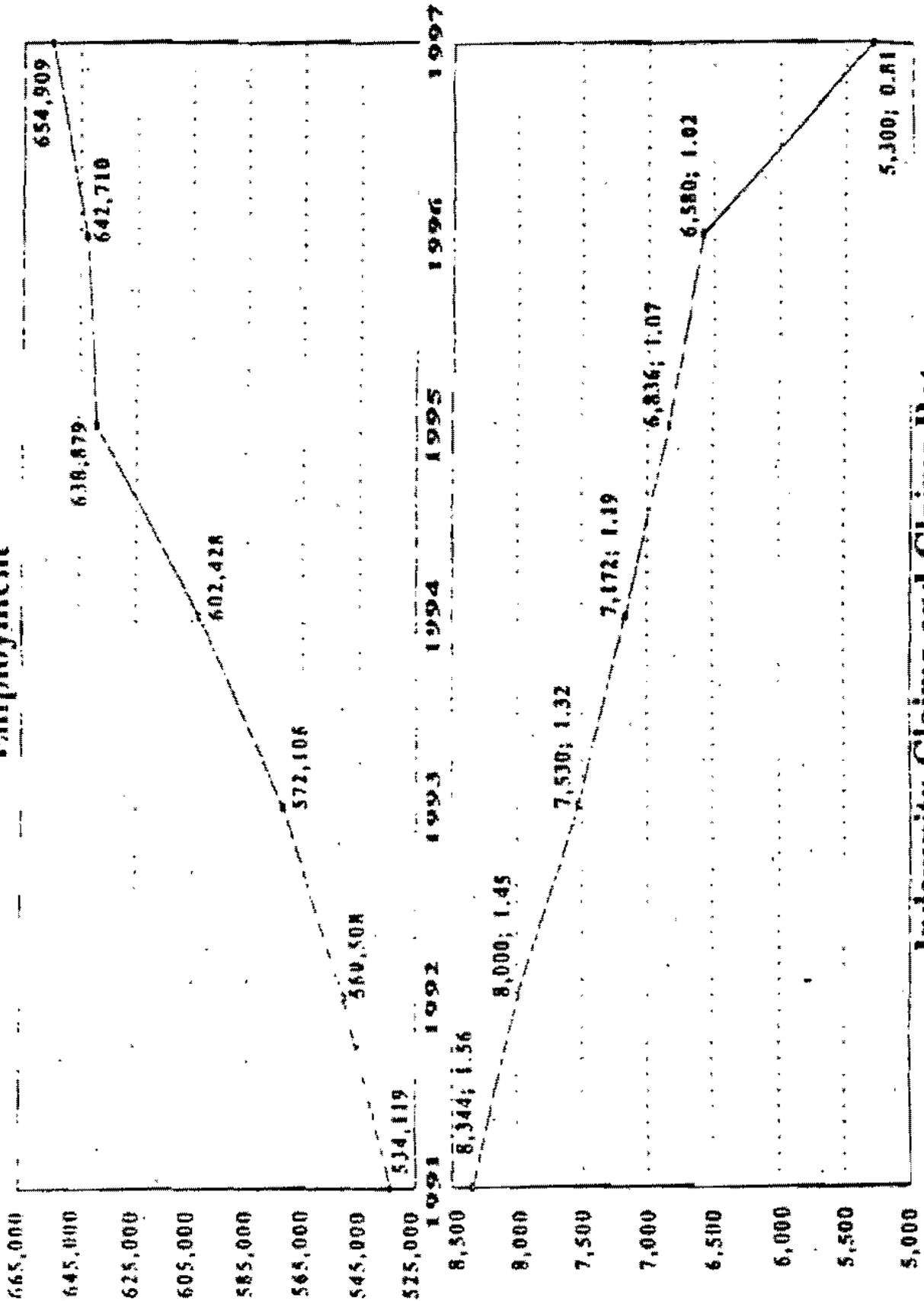
\* **ERGONOMICS --- Adapting jobs and workplaces to the workers by designing tasks, work stations, tools and equipment that are within the workers' physical limitations.**

\* **This pie represents 68.4% of all 1997 claims.**



# INDEMNITY CLAIMS

## Employment



## Indemnity Claims and Claims Rate

L 0408

# INDEMNITY CLAIMS

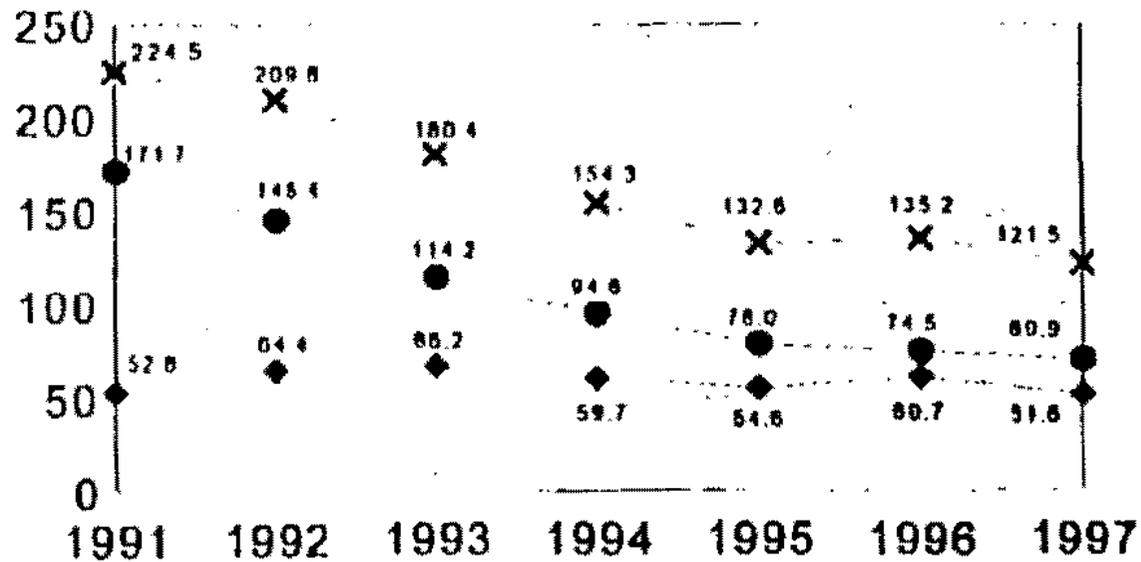
Year	Employment <sup>1</sup>	Number	Rate <sup>2</sup>
1991	534,119	8,344	1.56
1992	550,508	8,000	1.45
1993	572,105	7,530	1.32
1994	602,428	7,172	1.19
1995	638,879	6,836	1.07
1996	642,710	6,580	1.02
1997	654,909	5,300	0.81

<sup>1</sup> Figures represent employees covered by NM unemployment insurance excluding federal government employment since they are not covered by NM workers' compensation. NM Department of Labor, "Covered Employment and Wages, Second Quarter," 1991-1997 quarterly average.

<sup>2</sup> Claims rates express the number of indemnity claims (including fatalities) per 100 workers.

# INDEMNITY COSTS

↓ (Millions)



x — Total  
● — Private  
◆ — Self-Insured

**Note:** 1991-1992 estimated from NAIC rpts. and Annual Exp. Rpts.  
1993-1997 Actual Expenditures Reported.

2003

NAIC - ANNUAL EXPENDITURES

2000

L 0410

**FIFTEEN HIGHEST CLAIMS OCCUPATIONS, 1997**

<b>OCCUPATION</b>	<b>CLAIMS</b>	<b>PERCENT</b>
Laborers, Except Construction	661	12.5%
Construction Laborers	323	6.1%
Truck Drivers	303	5.7%
Cashiers	192	3.6%
Nursing Aides, Orderlies, & Attend.	181	3.4%
Drivers - Sales Workers	154	2.9%
Janitors & Cleaners	151	2.8%
Freight & Material Handlers, NEC <sup>1</sup>	147	2.8%
Cooks	128	2.4%
Carpenters	128	2.4%
Mining Occupations, NEC	114	2.2%
Managers & Administrators, NEC	107	2.0%
Walters & Waitresses	90	1.7%
Auto Mechanics	70	1.3%
Misc. Food Preparation Occupations	63	1.2%

<sup>1</sup> NEC = Not Elsewhere Classified

GENERAL INVESTIGATIVE

11411

# Appendix III

L 0412

## Case Study # 1 Home Office

In response to complaints of WMSD's by an employee of a home health care agency, an ergonomic evaluation of her home office. The evaluation was conducted by a relative who was a Certified Industrial Hygienist. The employee was responsible for public outreach with the agency. As part of her job, she wrote newsletters, created brochures, and did desktop publishing. The average amount of time spent working on the computer averaged four hours per day. The remainder of her time was spent attending meetings, conducting training, visiting doctor's offices, and other non-repetitive tasks. Because the agency did not have a computer capable of running the desktop publishing software, working at home was required.

The employee complained of back, wrist, shoulder, and neck pain. An analysis of her home office found the following risk factors:

- The desk being used was not designed for a computer. The keyboard was set on the center drawer with the mouse on the desk next to the monitor. This caused an excessive reach to the mouse, as well as an awkward wrist posture while typing.
- Because there was not a document holder, the employee set papers on the side of the desk as well as on a chair next to the desk. This caused the employee to have to turn her head up to 90 degrees.
- The employee was using a standard folding chair as her computer chair. The chair had no lumbar support.
- The employee did not have any type of footrest.

The employee purchased the following items to address the risk factors identified above.

- Computer desk - \$400
- Adjustable chair - \$200
- Ergonomic keyboard - \$50
- Document holder - \$20
- Total cost - \$670

Note Employee used a footstool she already owned to use as a footrest.

Changes in her workstation design, as well as the implementation of an hourly stretch break, eliminated the employee's WMSD complaints.

### ISSUES THIS CASE STUDY RAISES WITH THE PROPOSED STANDARD

1. Would the company be responsible for purchasing the items necessary for the employee's home office?
2. How much control does an employer have over home offices?
3. Must the agency accept the results of a hazard analysis conducted by a third party that it did not hire?
4. If a manager from the agency who was less qualified than the CIH to conduct hazard analyses disagreed with the CIH's evaluation, what recourse does the employee have?

## Appendix IV

L 0414

## Case Study #2

This case study is from a mid-size (1,000 employees) manufacturer of silicon wafers for use in the semiconductor industry. The first step in the manufacturing process is to grow silicon monocrystals from different forms of polycrystalline silicon (Poly). As part of the process, unusable parts of the crystals were re-used as raw material. This group of jobs was known as Poly Preparation. (20 employees - S/shift in this area)

A job hazard analysis of the area found numerous WMSD risk factors. First aid case and recordable injury data for the plant from a three-year period was analyzed. The Poly Preparation area had a significantly higher rate of strains and sprains than the rest of the plant. Surprisingly, the lost workday rate for the area was not significantly different from the rest of the plant.

The original process steps were:

### Preparation

- Get box of Poly (approx. 20 - 30 kg.) from the pallet in hallway and carry into the Breaking room (approximately 20 feet)
- Place Poly on the scale, until approximately 10 kg. is weighed out
- Place Poly in tote trays (totes)
- Carry tote to staging area and stack up to five high (approximately 20 feet away)
- Repeat with next tote
- Continue until all boxes empty

### Breaking

- Using tungsten hammer, break all Poly in the tote into pieces less than two inches in diameter
- Place tote aside
- Repeat with the next tote
- When all totes of Poly have been broken, move totes using a hand truck to etcher storage area (approximately 200 feet walking distance)

### Etching

- Place totes of Poly to be etched on the conveyor
- Empty first tote into etching baskets
- Place baskets in the etcher load station
- Repeat with next tote

### Drying (done concurrently with etching)

- Carry baskets from the etcher unload station and place in dryer (approximately 15 feet)
- When dryer is full, start 45 minute drying cycle
- When dryer is done, dump the Poly into a storage bag (10 kg per bag) and place in a storage box

L 0415

### **Storage**

Carry box to storage area (approximately 50 feet)

Place on shelf (shelf height of 20", 40", and 60" off floor)

Write location of box in log

This process took three people. Two working in the breaking rooms and one person operating the etcher and dryer. Risk factors included:

- Repeated manual lifting
- Stooping when breaking poly in the bottom two totes of a stack
- Lifting boxes from floor level
- Lifting boxes to above shoulder level

As part of an overall upgrade of the area, an attempt was made to eliminate or minimize ergonomic risk factors. A workable process flow was developed that would increase productivity as well as greatly reduce the number of risk factors. After several failed presentations to upper management, the project was approved with the ergonomic upgrades included.

The redesigned process was.

#### **Breaking**

- Move a pallet of Poly boxes using a fork truck onto the pallet positioner in the appropriate Breaking room
- Position pallet so that the top row of boxes is at waist height
- Remove several chunks of Poly and place on breaking table
- Break up Poly into pieces that are less than two inches in diameter
- Place pieces of Poly on the scale on the side of the breaking table
- Weigh out approximately 5 kg and place in basket
- Slide basket onto conveyor
- Repeat until all boxes of Poly are done

#### **Etching and Drying**

- Select Poly type and start conveyor from that room
- Baskets of Poly moved by conveyor to the etcher load station
- Etcher automatically loads baskets, etches, then unloads onto another conveyor
- Conveyor automatically carries baskets into dryer
- Basket passes through the dryer on the conveyor and go to Packaging station

#### **Packaging**

- Dump two baskets into storage bag
- Seal and place a barcode label on the bag
- Place the bag in a storage bin
- Slide the bin onto conveyor

L 0416

### **Storage**

- Turn on conveyor to get storage bins from Packaging
- Read barcode
- Have vertical carousel find open shelf
- Read barcode on shelf
- Slide bin into shelf
- Repeat

Manual lifting was minimized. Where manual lifting was required, the lifts were always from near the waist. The heaviest lift required with the redesigned process was approximately 10 kg. For the year after installation, no strains or other WMSD's were reported from the Poly Prep area. Perhaps most significantly, production capacity was doubled without increasing headcount. At the same time, employee attitudes towards working in the area greatly improved.

Total cost of the project was approximately \$1,400,000. The total time from project approval until start-up was 16 months. The project scope included:

- Pallet positioners
- New breaking tables
- Conveyor systems
- New etcher
- New dryer
- Vertical storage carousels
- Bar coding systems
- Facility changes (moving walls, changing HVAC, redesigning exhaust systems, power upgrades, etc)

While minor changes could have been made to the area, virtually all of the ergonomic improvements required the complete project to be feasible. The pallet positioners could not be added without moving walls. The conveyor systems needed to minimize manual lifting required replacement of the old etcher and dryer. The cost of the pallet positioners, conveyors, and breaking tables was less than \$150,000. Without the ergonomic enhancements, the estimated project cost was \$900,000. Of the additional \$500,000 spent, the bulk of it was due to the increased cost of the etcher and dryer systems so that no manual loading and unloading was required. Installation of the complete conveyor system also required additional facility modifications.

### **ISSUES THIS CASE STUDY RAISES WITH THE PROPOSED STANDARD**

1. Because of the WMSD cases in the Poly Prep area, it would be considered a problem job. Would the standard consider the project listed above as "feasible"?
2. The time to project completion was 16 months. The standard requires "feasible permanent controls" to be implemented within 12 months of the identification of the problem job. Realistically, this project could not have been completed sooner due to the long lead times on the equipment and the large amount of facilities modification required

# Appendix V

L 0418

## Implementation Costs of Proposed Ergonomic Program Standard for A Small Manufacturer

During the process of evaluating OSHA's cost and time estimates, it was difficult for me to think of these numbers outside of the context of a typical client. The process of implementing a regulatory requirement is not efficient as presented in the Preliminary Analysis. The elements as defined are not compartmentalized in a systematic way. The process of communication and decision-making take far more time than estimated in OSHA's analysis. The number of people involved and the levels of professional expertise are greater.

Table 1, page 8 outlines OSHA's estimates of the time and costs associated with implementation of the program. In estimating costs of employee and supervisor, I used information from Costs of Compliance: Program Implementation. For the purposes of this illustration, I have made up a company that is a small manufacturer of widgets. Widgets, Inc. has 2 shifts, 20 workers and one supervisor per shift. The owner is also included in management. Assume we have 3 MSDs reported and only 1 MSD requiring Medical Removal. I also assumed a consultant was used. However, consultants are used differently than as presented in OSHA's table.

The OSHA estimates of time are extremely optimistic. In Exhibit 1 (Cost Estimates by David Alexander), this small manufacturer would be in Very High Cost Category of Manufacturing (\$2500 to \$10,00). He estimated only 6% of the companies would spend this amount of money. However, in my example using OSHA's numbers, Widget, Inc. spends \$980.24 (dropping down to Modest Cost or 25% of companies) just getting the program set up. This example does not include any costs of equipment purchases or process modification. Medical costs are also not included.

My estimates of Widget, Inc. implementing this program are as follows. The President hears about this standard at a lunch meeting. He comes back to the facility and goes to the OSHA web site and downloads the standard (30 minutes). He reads the standard (30 minutes), reads the standard again (30 minutes) and calls a golfing buddy to talk about it. He then calls his corporate attorney to give him an evaluation of whether this standard applies to his company or not. The attorney calls him back and says, yes, you must implement and here's my bill for 2 hours of my time (he is a nice attorney, his bill is only \$300). Mr. President calls in his two supervisors and they read the standard together and discuss how it is going to be implemented. The Mr. President, Mr. Supervisor A and Mr. Supervisor B have worked together for many years so the meeting only last 1 hour. So, Widget, Inc. has spent about 5.5 hours (\$134.31) just getting and discussing the standard. Widget, Inc. has spent about \$434.31 just to determine the standard applies. These costs are not included in OSHA's cost estimates.

OSHA assumes that management training is only 2 hours initially. However, most managers will go to a class that will probably last about 8 hours to get a better idea of how the standard will be implemented. Mr. Supervisor A finds a class and goes to the class (8 hours plus tuition - \$150.00). He then comes back to the facility and trains Mr. President and Mr. Supervisor B. Assuming Mr. Supervisor A thought about what applied and didn't apply while he was brushing his teeth, his debrief to the other two is only 3 hours. My estimate of the Managerial training is approximately 17 hours (\$415.14) plus tuition for total of \$565.14.

To get to the first row of OSHA's Table 1, Widget, Inc. has invested 22.5 hours and about \$999.45. I have not included the overtime costs associated with Mr. Supervisor B covering for Mr. Supervisor A. Or, the overtime costs for Mr. Supervisor A if he attended the class on his day off.

Initial Set up costs require training of all personnel. Mr. President decides its more cost effective and the employees will get better information if they bring in their Safety Consultant to train the troops (1 hour). Mr. President's Secretary makes all the arrangements (1-hour). The Safety Consultant does a walk through to determine the applicable areas and looks at the procedures to determine what changes to specifications need to be addressed (2 hours). Mr. Supervisor A rewrites the Safety Section all the manufacturing

L 0419

specifications to include ergonomic sound safe work practices (4 hours). To cover safe work practices for lifting, back protection, adjusting tables and wrist protection, signs and symptoms of exposure, requirements of the OSHA standard, the consultant designs a 3 hour class. That provides sufficient time to explain the requirements and answer employees questions and address employees concerns. The time of the consultant is not included in the hour estimate...those costs are included in the consultants fee. The consultant's fee is \$1600 to provide walkthrough and two classes with training materials. The class is done in the break room. Initial Set Up and Reporting System takes 6 hours of Widget, Inc. time.

After the class, three employees go to Mr. Supervisor A and report signs and symptoms of exposure. Each employee goes individually. Employee A has back pain. He goes into Mr. Supervisor A's office and explains his symptoms. Mr. Supervisor A asks him to show him what he is doing when he gets the back pain. They go back to the floor of the facility and walk through the job task. This takes about 30 minutes to have the conversation and walk through the task. That is 1 hour of time for reporting. A similar scenario occurs with the remaining employees though they have different issues. Mr. Supervisor A spends 3 hours with employees and determines that there may be an ergonomic hazard to investigate. He does not have the time or knowledge to do a thorough investigation. He tells Mr. President about the issues in his morning meeting. They discuss their options. They call the Safety consultant. The Safety Consultant tells them that ergonomic job hazard analysis is a very specialized field and she will have her associate call them. The Ergonomic Consultant calls back later that afternoon and makes arrangements to come in a see the employees for an interview and to walk through the facility. The Ergonomics Consultant spends one hour with each employee and 1-hour with Mr. Supervisor A. He walks through the job site (2 hours) and goes back to his office to write up the job analysis. He spends 6 hours writing the report. He spends a total of 10 hours and sends a bill for \$1800.

Widget, Inc. then sends Mr. President and Mr. Supervisor B to the 8-hour training course because it is obvious that they are all going to need the information. They come back and have a management meeting (1-hour) and determine they need to implement a Hazard Control Program. They call the Ergonomics Consultant back to explain what is involved in implementing a HCP. The Ergonomic Consultant explains the process to them and also indicates that Hazard Control Engineering modifications may be needed. The meeting lasts 2 hours. Management discusses the issues. They call in employees to get their input. The 3 employees with possible MSDs believe their injuries are work related and something needs to be done about it. The informal leaders of the employees are called in. They, too, believe that since the training and the three possible MSDs are present, a full Hazard Control Program is necessary. For one month, the rumor mill buzzes in the facility. Finally, Mr. President decides to implement a Hazard Control Program.

The Ergonomic Consultant returns with his Ergonomic Engineer associate. They present a proposal to do the evaluation for approximately \$10,000 to evaluate 10 workstations and 20 employee job tasks. Their analysis indicates there are workstation modification necessary that cost approximately \$3000 per workstation (\$30,000). The modifications require 2 employees about 4 hours per work station to install. It takes approximately 2 months to complete the analysis and 2 months to order and install the workstation modifications.

After two months, two of the employees who reported MSDs, have no further signs and symptoms of exposure. However, one employee is still experiencing problems. The Ergonomic Consultant returns to examine the work behavior of the employee. The Ergonomic Consultant does not observe any obvious issues with the employees work practices or job tasks. Based upon the requirements of Figure 1 of the proposed standard, the Ergonomic Consultant informs Mr. President that he must implement the Medical Management sections of the standard. Mr. Ergonomic Consultant sends the company an invoice for \$1000.

Mr. President calls Mr. Supervisor A and Mr. Hurting Employee for a meeting. The three of them discuss what needs to be done next and how to address the issue. Mr. Hurting Employee determines he needs medical examination. Mr. President and Mr. Supervisor A agree. The meeting lasted an hour.

Mr. Supervisor A asks Ms. Secretary to make arrangements for Mr. Hurting Employee to go to the Occupational Medical Center for an examination. Ms. Secretary makes the arrangements and contacts Mr.

Hurting Employee and informs him of his appointment. It takes .5 hour for Ms. Secretary to make the arrangements and contact Mr. Hurting Employee.

Mr. Hurting Employee goes to the Occupational Medical Center. He sits in the waiting room for an hour. Dr. Occupational Medicine finally sees Mr. Hurting Employee. He gives him a general examination and orders X-rays. While Mr. Hurting Employee is getting x-rays, Dr. Occupational Medicine looks through his database on ergonomic illnesses. He can find no obvious correlation of symptoms and job tasks. He calls his associate, Dr. Osteo Medicine. Dr. Osteo says she can't make any judgements until she has seen the patient and the X-rays. Mr. Hurting Employee is sent back to work. Dr. Occupational Medicine writes a report and recommends Mr. Hurting Employee to Dr. Osteo Medicine. The Occupational Medical Center sends a bill to Widget, Inc. for \$700. Mr. Hurting Employee spent 5 hours (\$79.65) at the Occupational Medical Center. Widget, Inc. has spent \$779.65 and does not have a diagnosis.

Ms Secretary sends the bill to the insurance company. Mr. Insurance Agent calls back to ask if the cost is job related. Ms Secretary does not know. Mr. Insurance Agent tells her Widget, Inc.'s policy only covers job related expenses. Ms Secretary gives this information to Mr. President. Mr. President calls Mr. Attorney. Mr. Attorney pulls out the policy while on the phone and tells him, Mr. Insurance Agent is correct, until the medical causality is identified, the policy does not reimburse expenses. Mr. Attorney sends a bill for \$100.

Mr. President calls Dr. Occupational Medicine. He's with a patient and doesn't return the call for two hours. They discuss whether this is or is not a work-related issue. Dr. Occupational Medicine cannot be sure until further testing and analysis is complete. He prefers not to make a determination because of liability issues until Dr. Osteo Medicine has examined the employee.

Mr. President sends Mr. Hurting Employee to Dr. Osteo Medicine. Dr. Osteo Medicine does an extensive medical examination including a MRI on Mr. Hurting Employee. She determines that Mr. Hurting Employee has the onset of arthritis. Mr. Hurting Employee has spent 8 hours (\$127.44) in examinations and testing. Dr. Osteo Medicine sends a bill to Widget, Inc. for \$1500.00.

Ms Secretary sends Dr. Osteo Medicine's bill to Mr. Insurance Agent. Mr. Insurance Agent calls back and says none of the expenses are covered under the company's policy because the medical cause is associated with an individual medical condition. Ms Secretary calls their employee medical benefits carrier. Ms Employee Benefits Agent informs Ms Secretary that the costs associated with investigating a work-related issue are not covered by personal medical policies. The employee should have gone to his personal care physician.

Administering the Medical Management has just cost Widget, Inc. with one questionably job related MSD, five hours of supervisors' time, fifteen hours of the employee's time, and \$3,300 in legal, medical and consultant's fees. OSHA estimates only 1 hour of managerial time per MSD.

Mr. Hurting Employee determines that his job is seriously aggravating his arthritis. He goes to Mr. Supervisor A and requests job reassignment. Mr. Supervisor A informs Mr. Hurting Employee that there are no other jobs available that would probably not aggravate his condition. Mr. Supervisor A suggests Mr. Hurting Employee go to his personal care physician for advise.

Mr. Hurting Employee goes to his personal care physician on his day off. Mr. Personal Care physician informs Mr. Hurting Employee that his arthritis is only going to get worse and gives him a prescription for pain control medication. Mr. Hurting Employee asks Mr. Personal Care Physician will there be any jobs that I can do that won't aggravate the arthritis. Mr. Personal Care Physician informs him this is a normal aging process and he can't think of physical tasks that won't be impacted, at least eventually.

Mr. Hurting Employee goes home and worries about his future for the weekend. He regrets not going to college and getting a degree that would qualify him for a non-physically demanding job. Then, he remembers his Ergonomic Program Training and pulls out his training manual. He reviews the section on Medical Removal Protection and gets excited.

On Monday morning in his one-on-one meeting with his supervisor, Mr. Hurting Employee requests disability leave per the requirements of Section 507 of the Ergonomics Program Standard. Mr. Supervisor A is shocked and surprised that Mr. Hurting Employee makes this request. He informs Mr. Hurting Employee that his illness is not job related. Mr. Hurting Employee informs Mr. Supervisor A that his illness is a MSD illness aggravated by his job tasks, making the standard applicable. A heated discussion ensues. Mr. Supervisor A says he'll get back to Mr. Hurting Employee.

Mr. Supervisor A goes to Mr. President and informs him of Mr. Hurting Employee's request. Mr. President picks up the phone and calls Mr. Attorney. Mr. Attorney says they will have to get all the information together and have a meeting before he can make a determination. Mr. President calls his Workers' Compensation Agent. Mr. WC Agent says he has to review the policy. Later that day they all get together for a meeting.

The meeting lasts two hours. Mr. President, Mr. Supervisor A, Mr. Supervisor B, Mr. Attorney and Mr. WC Agent discuss all the alternatives. They discuss all the alternatives and the ramifications. The final determination is to let Mr. Hurting Employee go out on disability leave. Mr. Supervisor A says he needs a temporary replacement employee to fill the position for the next six months. They will have to run an advertisement, interview at least three applicants and provide the necessary training to perform the job tasks. It will take at least 10 hours of Mr. Supervisor A's time to replace Mr. Hurting Employee. The meeting ends. Mr. WC Agent goes back to his office and processes the necessary paperwork. Mr. Attorney sends a bill for \$300. Mr. Supervisor A looks for a replacement.

The costs incurred for the Medical Removal are \$1036 for the salary adjustment (just using OSHA's estimate), \$16,057 for replacement employee salary and benefits, \$300 in legal fees, \$390 in supervisory time. No calculations are included for lost productivity or training time.

A few weeks later, Mr. WC Agent calls Mr. President and informs him that because of this claim, they are going to have to increase his workers' compensation premiums. Payroll for Widget, Inc. is approximately \$815,000 and their workers' compensation premium is only 1.4 per \$100, the premium is currently \$11,410. But, to cover the costs incurred and potential future liabilities, the premium is only going up 10% to \$12,281. The Medical Removal cost Widget, Inc. \$19,011.

Table 1. Comparison of OSHA and SER Estimates

Requirement	OSHA estimate		SER estimate	
	Time (hrs)	Costs (\$)	Time	Costs (\$)
Managerial Training	6	146.52	22.5	999.45
Initial Set Up	23	391.86	6	146.52
Set up Reporting System	23	391.86	*	
Reporting MSD	1.5	30.25	4.5	97.15
Employee Information	11.5	159.30	60	2555.80
Manager Training Full	24	393.04	16	340.42
Hazard Control Program	33	1391.86	60	11391.00
Job analysis	6	121.05	4	1872.21
HCE or admin costs	*	2400.00	80	31274.40
Employee Training	9	194.31	*	
Administer Medical Management	3	71.26	20	3661.05
Medical Removal	*	1036.00	16	19011.00
Total	134	\$6629.31	289	\$71,349.00

# Congress of the United States

Washington, DC 20515

January 6, 2000

VIA FACSIMILE: (202) 693-7106

The Honorable Charles Jeffress  
Assistant Secretary of Labor  
Occupational Safety and Health Administration  
U.S. Department of Labor  
Room S-2315  
Washington, DC 20210

Dear Assistant Secretary Jeffress:

The Occupational Safety and Health Administration's (OSHA, Agency) recently published proposed regulation on ergonomics is the most far reaching and burdensome regulation ever attempted by this Agency. Accordingly, the comment period and hearing schedule must be extended to accommodate those who wish to do a thorough job in preparing their submissions and participating in this rulemaking.

We are troubled by OSHA's decision in setting an initial comment period of just over 60 days, and by your recent statement that this would not be extended.<sup>1</sup> There are countless questions raised by OSHA's proposal and the accompanying material in the more than 300 pages of the preamble. To analyze this material and everything in the docket will take far longer than what OSHA has proposed. Not only is this period unconscionably short, it is disrespectful to those who have to interrupt their family celebrations of Thanksgiving, Hanukkah, Christmas, Ramadan, and Kwanza to prepare their comments. This is a slap in the face to the small businesses and others who are sincere about participating in this process. OSHA's approach indicates that the agency is disingenuous in its comments about working with outside parties to improve this regulation.

Initiating this debate was one of the chief reasons that OSHA begged to be allowed to go forward with publishing this proposal, and yet, OSHA now appears to be trying to stifle the debate on this regulation. Furthermore, you have repeatedly said that you wanted to hear directly from business owners who would be affected by this rule. Unfortunately, given the length of the *Federal Register* publication and complexity of the issue, these are exactly the people who will be frozen out of the process. The only commenters with the resources to digest the information and develop a response, albeit not as thoroughly as possible, will be the legions of attorneys and ergonomics consultants who are already familiar with this issue. Now that the debate is happening, OSHA should not be doing everything in its power to prevent legitimate input from coming into the record.

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<sup>1</sup> Bureau of National Affairs, Daily Labor Report, *OSHA Will Not Extend Comment Period For Ergonomics Rule. OSHA Chief Says*, December 7, 1999, page A-5.

The Honorable Charles Jeffress

Page 2

Your assertions that this comment period should be short because interested parties have had since February 1999 to review the draft is an outrageous position.<sup>2</sup> OSHA unveiled its draft with the explicit statement that it would be changed before it was formally proposed. Indeed, it was released in conjunction with the Small Business Regulatory Enforcement Fairness Act panel being convened to review it and suggest changes. Thus, most observers took OSHA at its word and did not begin developing comments based on that draft. Sadly, in retrospect, that draft has changed very little. Furthermore, none of the explanatory material in the preamble, most of the material in the docket, and no part of the Initial Regulatory Flexibility Analysis were released at that point, meaning that those who wish to develop complete comments on OSHA's approach and rationale could not do this until the *Federal Register* publication which made some of this information available.

Another argument you have used to support this expedited process is that this issue is too important to wait, and the interests of employees demand quick action. This is just plain false. The interests of workers will not be served by a regulation that is so vague and unworkable that employers will not know what is expected of them. Nor will workers be served if the regulation is so burdensome that employers can not implement it without cutting jobs or replacing employees with automation. Employees, as well as employers, will be served best by OSHA allowing thoughtful comments and analysis to come into the record. The agency is obligated to consider these comments as part of the rulemaking process, although statements about getting the regulation out before the end of December 2000 cast doubt on how much attention the comments will receive. It is in OSHA's interest to review these comments thoroughly and revise its regulation so that it is reasonable and employers will know how to protect their employees when they consult it. Therefore, everyone's interests are served best by providing adequate time for comprehensive and detailed comments to be developed.

In addition, this length of comment period is unprecedented in the history of significant OSHA regulations. As the attached table indicates, previous significant OSHA regulations have had comment periods that were initially longer than this and in some cases were also extended, sometimes more than once. It should also be noted that OSHA has often reopened a rulemaking to take further comments on specific issues. This is not the time to be departing from this pattern and practice.

For all of these reasons, as well as basic fairness, we request that OSHA extend the comment deadline for the ergonomics proposal to 30 days after the National Academy of Sciences study is completed. Furthermore, the schedule for hearings and post hearing comments should be extended in a similar way so that comments submitted to the docket can be analyzed and referred to during hearing statements. This time frame is consistent with the passage of H.R. 957 and the bipartisan support that S. 1070 has received.

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<sup>2</sup> Daily Labor Report, December 7, 1999, page A-5.

**SIGNIFICANT OSHA RULEMAKINGS: INITIAL COMMENT PERIODS AND EXTENSIONS**

Title of Regulation	Initial Comment Period	Extension	Total Length of Comment Period
Methylene Chloride (29 CFR 1910.1052, 1915.1052, 1926.1152)	5 months	none	5 months
1,3 Butadiene (29 CFR 1910.1051)	5 months	13 months	18 months
Construction Scaffolding (29 CFR 1926.450-454)	3 months	6 months	9 months
Logging Operations (29 CFR 1910.266)	3 months	none	3 months
Electric Power Generation (29 CFR 1910.269)	3 months	1 month	4 months
Revised Fall Protection for Construction Industry (29 CFR 1926, Part M)	3 months	5.75 months	8.75 months

L 0425

06/00 THU 10:10 PM

OSHA ASST SEC

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~~John H. ...~~  
Ray Blunt

Ray F. Wicker

Jim DeMint

Steve Largent

John E. Peterson

Paul F. Bass

Rob Portman

Paul D. ...

Tom DeLay

Phil ...

Virgil Goode, Jr

Josh Pitts

Chip Pickens

John E. ...

Paul Ryan

Ron Paul

Rick Hill

John Wamp

Jim Anderson

Wes Watkins

Pete Sullivan

Paul Hill

Tom Reynolds

Mike Cunningham

~~John Wamp~~  
John Wamp

My Boult

Ed Shum

Tom Tarrants

Paul Hefley

The Honorable Charles Jeffress

Page 3

We look forward to your prompt granting of this request.

Sincerely,



Senator John Ashcroft



Senator Christopher S. Bond



Senator Wayne Allard



Senator Robert F. Bennett



Senator Sam Brownback



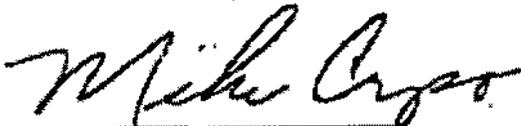
Senator Jim Bunning



Senator Paul Coverdell



Senator Larry E. Craig



Senator Mike Crapo



Senator Mike DeWine



Senator Pete V. Domenici



Senator Mike Enzi



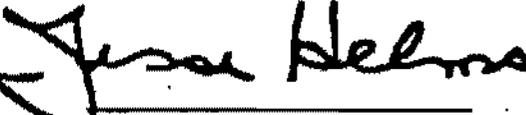
Senator Rod Grams



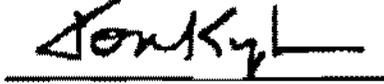
Senator Judd Gregg

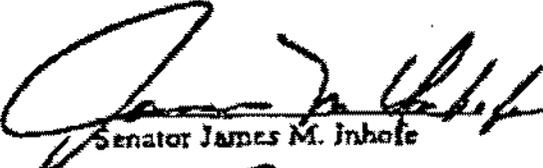
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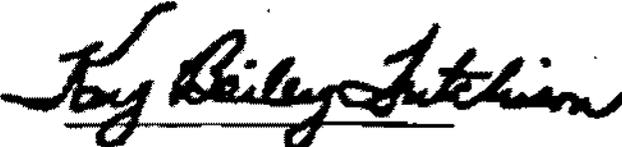
  
Senator Chuck Hagel

  
Senator Jesse Helms

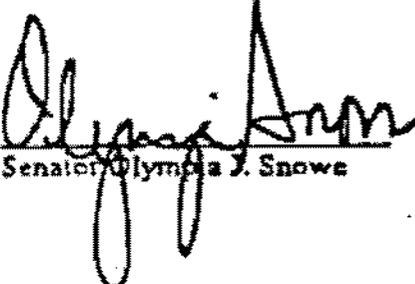
  
Senator Tim Hutchinson

  
Senator Tom Kyl

  
Senator James M. Inhofe

  
Senator Kay Bailey Hutchison

  
Senator Pat Roberts

  
Senator Olympia J. Snowe

  
Senator Craig Thomas

Attachment

20000046

**U.S. Department of Labor**

Assistant Secretary for  
Occupational Safety and Health  
Washington, D.C. 20210



FEB 16 2000

The Honorable John Ashcroft  
United States Senate  
Washington, DC 20510

Dear Senator Ashcroft:

Thank you for your letter dated January 6, 2000, requesting that the Occupational Safety and Health Administration (OSHA) extend the pre-hearing public comment period for the proposed Ergonomics Program standard. I appreciate your concerns about the time allotted for comments. Because the standard is so important, we have decided to extend the comment period an additional 30 days, until March 2, 2000.

I am confident that 100 days provides sufficient time for interested members of the public to review the proposal and prepare written comments. Both the Occupational Safety and Health Act of 1970 (the Act) (29 U.S.C. 655(b)(2)) and our procedural regulations under the Act (29 CFR 1911.11(b)(3)) refer to comment periods of only 30 days. We are offering members of the public the opportunity to submit their comments on the proposed standard electronically through OSHA's website at [www.osha.gov](http://www.osha.gov). OSHA hopes that allowing interested parties to file "e-comments" will make submitting comments easier and will allow more stakeholders to comment on the proposed standard.

The seriousness of the problem of work-related musculoskeletal disorders (MSDs) also convinces OSHA that we should not delay needed protection for workers. Work-related MSDs currently account for one-third of all occupational injuries and illnesses that are severe enough to result in days away from work. Each year, employers pay \$15-\$20 billion in workers' compensation costs alone, and total direct costs are as high as \$45-\$60 billion. I believe this evidence shows we must act promptly to address this serious but preventable occupational health problem.

Stakeholders have had extensive input into the development of the proposed standard. OSHA has reached out to interested parties throughout its development. In 1992, OSHA published an Advance Notice of Proposed Rulemaking (ANPR) seeking information from interested parties on musculoskeletal disorders, as well as successful ergonomics programs. We received 290 responses to the ANPR and have considered these comments in developing the proposed

L 0430

standard. Since 1995, OSHA has been holding informal meetings with stakeholders to discuss different approaches to an ergonomics rule. In 1998 alone, OSHA held 13 meetings involving more than 400 stakeholders in cities across the country to discuss various issues related to the proposed standard. We have drawn heavily from the experiences of these stakeholders in crafting the proposal. OSHA also posted a working draft of the regulatory text on its web site in February 1999. The proposed standard follows the general principles of the February working draft, modified to reflect comments received by the Agency. Last year, OSHA convened a small business review panel under the Small Business Regulatory Enforcement Fairness Act (SBREFA). The review panel consulted with small business representatives about the impact of the proposed rule on small businesses and prepared a report for the rulemaking record. The panel consisted of representatives from OSHA, the Office of Management and Budget, and the Small Business Administration's Office of Advocacy. OSHA has reviewed the panel's report and has addressed the panel's concerns in the proposed standard, preamble, and economic analysis.

Finally, I would point out that the pre-hearing comment period is only the first of many opportunities for interested members of the public to participate in the rulemaking. OSHA has scheduled eight weeks of informal public hearings on the proposed standard, in which any member of the public may participate. In addition, everyone who filed a Notice of Intention to Appear at the hearings will have an opportunity to submit additional evidence, comments and briefs on the proposed standard during the post-hearing comment period.

Thank you for your interest in the proposed standard. I look forward to working with you during this rulemaking process.

Sincerely,



Charles N. Jeffress  
Assistant Secretary

L 0431

**STATEMENT OF CHARLES N. JEFFRESS  
ASSISTANT SECRETARY FOR OCCUPATIONAL SAFETY AND HEALTH  
U.S. DEPARTMENT OF LABOR  
BEFORE  
THE SUBCOMMITTEE ON REGULATORY REFORM  
AND PAPERWORK REDUCTION  
OF THE  
HOUSE SMALL BUSINESS COMMITTEE  
April 13, 2000**

Madam Chairperson, members of the Subcommittee, thank you for inviting me to testify about the Occupational Safety and Health Administration's proposed ergonomics standard. I welcome this opportunity to discuss the severe problem of work-related musculoskeletal disorders, also known as MSDs. OSHA has spent 10 years studying this issue, analyzing evidence, reviewing data, talking to stakeholders, and discussing ideas and options. It is now time to act.

Work-related musculoskeletal disorders are the most widespread occupational health hazard facing our Nation today. Nearly two million workers suffer work-related musculoskeletal disorders every year, and more than 600,000 lose time from work as a result. Although the median number of lost workdays associated with these incidents is seven days, the most severe injuries can put people out of work for months and even permanently impact their ability to perform their job. In addition, \$1 of every \$3 spent on workers' compensation stems from insufficient ergonomic protection. The direct costs attributable to MSDs are \$15 to \$20 billion per year, with total annual costs reaching \$45 to \$54 billion. Yet today, fewer than 30 percent of general industry employers have ergonomics programs.

**Real People**

The human dimension of this problem is striking. This debate is about real people

confronting real risks to their livelihood, health and well-being. Ursula Stafford is a 24-year-old paraprofessional for the New York City school district. Ms. Stafford was assigned to assist a paralyzed student who used a wheelchair. The student weighed 250 pounds and Ursula weighed 122. She received no training on how to lift the student (which was required, for example, to help the student go to the bathroom), nor did her employer provide any lifting equipment. Ursula worked only two days before seriously injuring her back on the third day. She had a herniated disc and spasms in her neck. Today she wears a back brace, endures constant pain and has been told that she may never be able to have children because her back may not be able to support the weight. Compounding this tragedy is the fact that Ursula's predecessor was similarly injured and became permanently disabled. Under the requirements of OSHA's proposal, Ursula's employer would have been required to fix the job after the first injury occurred. Ursula might never have been hurt.

Then there is Walter Frazier, a 41-year-old poultry worker, who has undergone four surgeries on his hands and wrists. For nearly nine years, Walter worked as a "live-hanger" in a chicken processing plant. An admittedly nasty job, live-hanging is simple in concept. Ten to twelve people stand beside a processing line, stretch over a barrier bar designed to contain the often-flapping chickens, grab the chickens by the legs, and then stretch upward while twisting to hang the chickens on fast-moving overhead shackles. Walter repeated this process about once every three seconds—that's about 10,000 times a day, 50,000 times a week, 2.5 million times a year.

Walter felt the initial pains in his hands shortly after beginning to work at the plant. Through the years his pain intensified while his health has diminished. Finally, in 1998, barely

able to lift 20 pounds and unable to perform many daily household chores, he agreed with his doctor's recommendations and had the first of four surgeries in an attempt to repair his damaged hands. In addition to severe hand problems, Walter has lower back pain and severe and chronic arthritis in his hands and shoulders. "My doctor told me I can't do this job anymore. My body's overworked, and I can't do this any further."

Many other workers have written us to express support for ergonomics regulation. One put it like this: "I'm an ultrasonographer who has recently been fired from my job because I had to be out with MSD. I probably would have never had this problem if there were an ergonomics standard present in my workplace."

Another worker who lost her job was Mary, a nurse in Oregon, who sustained a back injury and had to work on light duty for a year. Then her hospital told her to find another job because they did not have anything for her to do. Today she works at different part-time jobs in different locations and can no longer provide patient care. And there's Debra Teske, a customer service representative, diagnosed with bilateral carpal tunnel syndrome that required surgery on her right hand. Today, she has difficulty cooking, cleaning and picking up small objects. She can no longer kayak or bike, hobbies that she once enjoyed. And Carmen Willis, a nurse's aide, is on disability and must use a speaker phone because she cannot hold the telephone.

Beth Piknick is a registered nurse and also knows firsthand the importance of OSHA's proposed ergonomics program standard. While working as an ICU nurse, she suffered a career-ending back injury that was devastating, both personally and professionally. Throughout her career, Ms. Piknick helped patients move from their beds to chairs and back. Twisting, bending, pulling and pushing were all part of the job. She never had any back problems. But on February

L 0434

17, 1992, while helping move a patient, Beth severely injured her back. Physicians, surgeons, and physical therapists were not able to relieve the constant pain. Finally, two years after the injury Beth had spinal fusion surgery coupled with a major rehabilitation program. She was willing to endure whatever pain it took to return to the job she loved. Despite the surgery and the physical therapy, however, she cannot return to her job. Before her injury, Ms. Piknick was an active person who enjoyed bicycling, racquetball, waterskiing and yearly white water rafting trips with her family. Now, she cannot participate in any of those activities.

Women disproportionately suffer some of the most debilitating types of MSDs, such as carpal tunnel syndrome. This is not because women are more vulnerable to MSDs—but because a large number of women work in jobs associated with heavy lifting, awkward postures or repetitive motions. They hold a disproportionate number of jobs as nurses, cashiers, packagers, maids and house staff, assemblers and office workers. Consequently, women suffer 70 percent of the carpal tunnel syndrome cases and 62 percent of the tendinitis cases that are serious enough to warrant time off work.

Workers should not have to suffer like this. Often solutions to mismatches between workers and their tasks are right at hand—simple, easy and inexpensive. But too many employers have yet to realize the benefits of ergonomics and put protective programs in place. Fewer than 30 percent of employers with 20 or fewer employees have addressed ergonomics although more than 325,000 musculoskeletal disorders occur each year in smaller workplaces. In contrast, more than three-quarters of the companies with 250 or more employees have analyzed hazards and installed some engineering controls to decrease the risk of musculoskeletal disorders.

## Real Solutions

Ergonomics has an impact beyond workers. This discipline has its roots in improving efficiency and productivity. For years, many employers have known that good ergonomics is often good economics. And those employers have not only saved their workers from injury and potential misery, but they have saved millions of dollars in the process. The proposed rule draws on the experience of companies that have implemented successful programs.

Many businesses—both large and small—have already demonstrated the value of ergonomics programs. Enid Memorial Hospital, a small nursing care facility in Oklahoma, instituted an ergonomics program focused on back-injury prevention. Enid Memorial presented its program to staff through lectures, videos, handouts and demonstrations. The facility purchased mechanical lifts and made them available throughout the establishment. In 1997 and 1998, this practical ergonomics program cut the rate of work-related injuries by almost 75% from their 1996 level, and reduced the number of associated lost workdays by over 85 percent.

A 25-person Ohio lumberyard, the Weyerhaeuser Customer Service Center, invited an ergonomist from the State of Ohio's Workers' Compensation program to survey their site. Based on the recommendations they received, the lumberyard developed checklists for use by each of their employees in evaluating the ergonomic appropriateness of the facility's personal protective equipment, mechanical equipment and overall workplace. The lumberyard completely redesigned their office workstations in 1994. As of July of last year, they had not had any lost-time injuries since strengthening their program.

Two Maine New Balance shoe manufacturing facilities cut their workers' compensation costs from \$1.2 million to \$89,000 per year and reduced their lost and restricted workdays from

11,000 to 549 during a three-year period. New Balance achieved this by adding engineering controls, eliminating piecework, forming manufacturing teams, and rotating work activities.

Ultra Tool and Plastics, a small New York plastics products manufacturer, implemented an ergonomics program that cut back injuries by 70 percent and reduced associated lost workdays by 80 percent. Some solutions included: purchasing ergonomic chairs for production employees; providing back safety training; installing robot presses to eliminate the need for production employees to reach for parts; and making pallet jacks available for metal bins to allow height adjustments.

CR/PL Limited Partnership, a small Texas ceramic fixture manufacturer, had a fairly high incidence of lost workday injuries occurring in this facility due to moving products ranging from 25 to 52 pounds. The firm added mechanical-lift assists and changed the heights of some work stations to reduce lost workdays associated with MSDs by 60 percent in 2 years.

In 1996, Sysco Food Services of Houston, a food service distributor, had 201 injuries with 3,638 lost workdays. Sysco's back injuries accounted for almost 40 percent of the injuries and more than half the company's total workers' compensation costs. Most of the back injuries occurred in the warehouse and on delivery routes. Sysco formalized its ergonomics program under the leadership of its occupational health nurse. They instituted an early return to work policy. Workers were encouraged to report any symptoms. The company re-racked its warehouse and put brakes on the hand trucks. Sysco assessed its customers' locations for hazards during delivery and worked with its customers on improvements. Sysco also worked with its suppliers to get smaller bags, handles on packages, sturdier cardboard and lighter boxes. One year after implementing an ergonomics program, injuries dropped 25 percent, and the cost

of workers' compensation cases was down by more than 45 percent.

Many solutions to ergonomic problems are common sense and inexpensive. OSHA has identified many solutions that cost less than \$100. For example, workers at a packaging plant complained of leg and back fatigue. Their management installed footrests for standing posture workstations at a cost of \$50 each. At a manual assembly plant, a worker's job involved installing a small part with needle-nosed pliers that put stress on the wrist. The supervisor suggested another tool—available in the tool crib—that would make the task easier and safer without costing an extra dime. Another company recognized the need to make changes to their packaging line workstations because workers developed musculoskeletal disorders. They simply added a belt conveyor to move packaged boxes away from the workstation—at a cost of \$90.50 per worker. Employees in a poultry processing plant complained that ill-fitting protective gloves did not provide adequate protection. The company bought protective gloves from several manufacturers to provide a wide range of sizes for better fit. The cost was negligible. In many mechanical assembly companies, the use of hand tools injures small parts of workers' hands. Some companies have used padded tools with inexpensive materials to reduce injury, at minimal cost. These are only a few examples among many.

### **Public Process**

On November 23, 1999, OSHA published its 11-page proposed ergonomics standard in the *Federal Register*. As explained in the lengthy Preamble, the proposal was based on sound scientific evidence—including findings by the National Academy of Sciences—that strongly supports two basic conclusions: (1) there is a positive relationship between work-related musculoskeletal disorders and the workplace; and (2) ergonomics programs and specific

ergonomic interventions can reduce these injuries.

OSHA is providing ample opportunity for the public to provide input on its ergonomics proposal. We have already heard from more than 7,000 stakeholders during the 100-day pre-hearing comment period, and we are now in the midst of 9 weeks of public hearing on the proposal. During the hearings, we expect to hear from more than a thousand witnesses, including representatives of large and small businesses, small business owners, employee representatives and individual workers, as well as physicians, ergonomists, occupational health nurses, and others.

OSHA rulemaking hearings are legislative-type proceedings in which parties with information and views relevant to the proposed standard may provide testimony and be questioned by the agency. Our hearings go even farther, as OSHA also allows participants to question each other. OSHA believes it has provided sufficient time for this questioning, not all of which has been used. For example, after a National Institute for Occupational Safety and Health (NIOSH) panel testified about the scientific evidence on the causes and management of MSDs, participants did not even use all of the three hours that had been reserved for questioning the panel.

Participants who have filed a notice of intent to appear will also have an additional 90 days after the close of the hearing to submit further comments, including comments on the hearing testimony and other evidence already in the record. In total, the combined period – including the pre-hearing comment period, the public hearing, and the post-hearing comment period – which interested members of the public will have to comment on OSHA's proposal exceeds eight months. This period is in addition to the small business review panel process

conducted under SBREFA, the opportunity for comment after that process concluded, and the eight years of dialogue that have occurred since OSHA issued its Advance Notice of Proposed Rulemaking in 1992. Throughout this process, we have continually increased our understanding of the concerns of workers and businesses, and have considered carefully all of the views we have heard on how best to provide protection.

We very much appreciate efforts of everyone who has filed written comments and those who are participating in the public hearing process. As with all OSHA rules, we will base our final standard on the complete rulemaking record, including pre- and post-hearing comments, as well as the hearing testimony.

#### **OSHA's Proposal**

OSHA's proposed ergonomics program standard relies on a practical, flexible approach that reflects industry best practices and focuses on jobs where work-related MSDs occur, problems are severe, and solutions are generally understood. It would require general industry employers to address ergonomics—the fit between the worker and work—for manual handling and manufacturing production jobs, where we know the problems are most severe. And it requires other general industry employers to act when their employees experience work-related musculoskeletal disorders.

Under the proposal, about 1.6 million employers—those with manufacturing and manual handling jobs—would initially need to implement a basic ergonomics program. This means assigning someone to be responsible for ergonomics; providing information to employees on the risk of injuries, signs and symptoms to watch for, and the importance of reporting problems early; and setting up a way for employees to report signs and symptoms. Full programs for these

and other general industry employers would be required only if one or more work-related MSDs actually occurred. But even if a worker is hurt, the employer need not implement a full program if a "Quick Fix" can take care of the problem. If the employer corrects a hazard within 90 days, verifies that the fix has eliminated the hazard, and has no additional MSDs in that job, no further action is necessary. In addition, a "grandfather" clause gives credit to firms that already have implemented ergonomics programs that satisfy the core elements of the standard.

Under OSHA's proposal, only 25 percent of general industry companies with fewer than 20 workers will be required to adopt basic ergonomics programs for one or more of their jobs involving manual handling or manufacturing production work. Over a 10-year period, about 900 thousand small employers will need full programs because one or more of their workers will have experienced an MSD.

The OSHA proposal identifies six elements for a full ergonomics program: management leadership and employee participation; hazard information and reporting; job hazard analysis and control; training; MSD management; and program evaluation. OSHA intends that ergonomics programs be job-based, covering only the job where the risk of developing an MSD exists and any other jobs in the workplace that have the same work activities and conditions. Ergonomics programs need not cover all the jobs at the workplace. Nor are all MSDs covered. Rather, only MSDs caused by a work activity that is a core element of an employee's job or a significant part of her work day will trigger coverage.

The proposal would require that workers who experience covered MSDs receive a prompt response from their employer, including an evaluation of their injury and access to follow-up by a health care professional, if necessary. It also provides work restriction protection for workers

when a health care professional has determined restricted work is indicated due to a work-related MSD. Because the proposed standard is only triggered when an MSD is reported, its protectiveness depends heavily on workers' willingness to raise problems when they occur. Evidence shows that employees are reluctant to report symptoms if doing so might cause them to miss work and lose pay. Therefore, OSHA has proposed that workers whose injuries prevent them from working would receive 90 percent of their after-tax pay and 100 percent of benefits to limit economic loss as a result of their injuries. Workers capable of performing only light duty receive full after-tax pay and benefits. This is roughly equivalent to the 2/3 of pre-tax pay that workers already receive under most State workers' compensation programs. But this provision is not about worker pay, it's about injury prevention. It is designed to encourage early reporting and intervention, which is to the worker's benefit and the employer's benefit. OSHA has included similar provisions in several other standards, including those on asbestos, cotton dust, formaldehyde, lead, methylene chloride, benzene and cadmium.

OSHA estimates the proposed standard would prevent about 3 million work-related MSDs over the next 10 years and save an estimated \$9.1 billion annually in lost production, administrative, and other direct costs alone. The total benefit far outweighs the estimated \$4.2 billion annual cost of the proposal to employers. Although some private organizations have published estimates that differ from OSHA's, many of these estimates contain either fundamental misunderstanding of OSHA's economic analysis, or of how OSHA's proposed rule would be applied. For example, some of these estimates compare their estimates of initial costs to OSHA's estimates of annualized costs (American Meat Institute and the Center for Office Technology). Other estimates compare the costs for a 150-person plant to an OSHA estimate

provided for a 17-person plant (American Meat Institute). Some estimates assume that firms would have to make vastly greater efforts than anything required by OSHA's proposed standard, actually used by existing programs, or adopted as part of OSHA's corporate settlement agreements. For example, one appraisal estimated that complying with part of OSHA's employee participation requirement would require 10 employees in a 150-employee facility to meet 2 days a week every week for 6 months. Nothing in OSHA's standard requires such an effort. This same study assumed that the only way to control problem jobs would be to decrease productivity by 25 percent. Evidence we have received to date indicates that ergonomics programs often lead to productivity increases. Other studies use data based on speculative projections rather than real-world examples. Despite such flaws, where cost estimates submitted for the record demonstrate any mistake or lack of clarity in OSHA's economic analysis, we will revise the analysis accordingly.

#### **Small Business Assistance**

OSHA has paid close attention to the unique needs of small businesses as we have developed the proposal. We drafted the 11-page proposal in a question-and-answer format that is written in plain language. The proposal exempts businesses with 10 or fewer employees from recordkeeping requirements. It extends the phase-in requirements for job hazard analysis for two years and the phase-in for implementing permanent controls for three years.

In accordance with the Small Business Regulatory Enforcement Fairness Act (SBREFA), OSHA, the Office of Management and Budget, and the Small Business Administration convened a Panel to review and comment on a working draft of the ergonomics program. The Panel sought advice and recommendations from potentially affected small business representatives. Twenty-

one small business representatives from a variety of industries participated in the effort. The Panel raised a number of questions and suggested several potential improvements to OSHA's draft, many of which were addressed in the proposal we published in November.

OSHA made changes to both the economic analysis and its proposed standard after the SBREFA Panel's review. Those changes included: refining the work restriction protection provision; increasing the original cost estimates to \$4.2 billion; clarifying that repeat training is not necessary if employees have already received ergonomics training; and providing examples of covered manufacturing and manual handling jobs. Another significant addition based on the SBREFA process was the "Quick Fix" option. The draft we provided the SBREFA Panel required employers to implement full ergonomics programs in the event an employee contracted an MSD. Small entity representatives asked why a full program was necessary if a condition could be easily remedied and workers protected. Those comments led to the "Quick Fix."

In addition to drafting a standard that places a minimal burden on small businesses, OSHA plans to provide extensive assistance to small businesses to assist with compliance—through publications, checklists, training grants, information sheets that help employers provide required information to their workers, Internet-based materials, outreach sessions and its free consultation program. Every small employer that needs help will be able to contact one of OSHA's state consultation programs for free assistance in deciding what they need to do or whether they need a program at all.

We are also undertaking extensive efforts to train OSHA's own compliance staff. The OSHA Training Institute already trains the agency's compliance officers about ergonomics. Consistent with our standard practice whenever OSHA promulgates new standards, we will

revise those courses based on the final rule and ensure that all compliance officers who will perform ergonomics inspections receive updated training. In addition, we will continue to send compliance officers to conferences and programs on applied ergonomics, where best practices are discussed, in order to hone their skills even further.

### Conclusion

MSDs have a very measurable impact on the lives and careers of American workers. Companies that have worked to prevent these injuries with sound ergonomics programs have often improved productivity, drastically reduced workers' compensation costs, and improved job satisfaction. OSHA believes that the same opportunity for a safer workplace must be extended to other workers whose livelihoods and careers remain at risk. Preventable hazards too often mean the difference between a happy, healthy productive worker and one whose life and career may be forever changed by the misery of chronic pain from a senseless injury.

Thank you for the opportunity to testify about this very important issue. I will be pleased to answer any questions the Subcommittee may have.

**STATEMENT OF CHARLES N. JEFFRESS**  
**ASSISTANT SECRETARY FOR OCCUPATIONAL SAFETY AND HEALTH**  
**U.S. DEPARTMENT OF LABOR**  
**BEFORE**  
**THE SUBCOMMITTEE ON EMPLOYMENT, SAFETY, AND TRAINING**  
**OF THE**  
**SENATE HEALTH, EDUCATION, LABOR AND PENSIONS COMMITTEE**  
**April 27, 2000**

Mr. Chairman, members of the Subcommittee, thank you for inviting me to testify about the Occupational Safety and Health Administration's proposed ergonomics program standard. I welcome this opportunity to discuss the problem of work-related musculoskeletal disorders, also known as MSDs, and the standard OSHA has proposed to address this major public health issue. I am also pleased to respond to your invitation to address the proposed standard's work restriction protection provisions.

Work-related musculoskeletal disorders are the most widespread occupational health hazard facing our Nation today. Nearly two million workers suffer work-related musculoskeletal disorders every year, and about 600,000 lose time from work as a result. Although the median number of lost workdays associated with these incidents is seven days, the most severe injuries can put people out of work for months and even permanently disable them. In addition, \$1 of every \$3 spent on workers' compensation stems from insufficient ergonomic protection. The direct costs attributable to MSDs are \$15 to \$20 billion per year, with total annual costs reaching \$45 to \$54 billion.

OSHA has spent 10 years studying this issue, analyzing evidence, reviewing data, talking to stakeholders, and discussing ideas and options. It is now time to act.

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## Real People

The human dimension of this problem is striking. This debate is about real people confronting real risks to their livelihood, health and well-being. Ursula Stafford is a 24-year-old paraprofessional for the New York City school district. Ms. Stafford was assigned to assist a paralyzed student who used a wheelchair. The student weighed 250 pounds and Ursula weighed 122. She received no training on how to lift the student (which was required, for example, to help the student go to the bathroom), nor did her employer provide any lifting equipment. Ursula worked only two days before seriously injuring her back on the third day. She had a herniated disc and spasms in her neck. Today she wears a back brace, endures constant pain and has been told that she may never be able to have children because her back may not be able to support the weight. Compounding this tragedy is the fact that Ursula's predecessor was similarly injured and became permanently disabled. Under the requirements of OSHA's proposal, Ursula's employer would have been required to fix the job after the first injury occurred. Ursula might never have been hurt.

Then there is Walter Frazier, a 41-year-old poultry worker, who has undergone four surgeries on his hands and wrists. For nearly nine years, Walter worked as a "live-hanger" in a chicken processing plant. An admittedly nasty job, live-hanging is simple in concept. Ten to twelve people stand beside a processing line, stretch over a barrier bar designed to contain the often-flapping chickens, grab the chickens by the legs, and then stretch upward while twisting to hang the chickens on fast-moving overhead shackles. Walter repeated this process about once every three seconds—that's about 10,000 times a day, 50,000 times a week, 2.5 million times a year.

Walter felt the initial pains in his hands shortly after beginning to work at the plant. Through the years his pain has intensified while his health has diminished. Finally, in 1998, barely able to lift 20 pounds and unable to perform many daily household chores, he agreed with his doctor's recommendations and had the first of four surgeries in an attempt to repair his damaged hands. In addition to severe hand problems, Walter has lower back pain and severe and chronic arthritis in his hands and shoulders. "My doctor told me I can't do this job anymore. My body's overworked, and I can't do this any further."

Many other workers have written us to express support for ergonomics regulation. One put it like this: "I'm an ultrasonographer who has recently been fired from my job because I had to be out with an MSD. I probably would have never had this problem if there were an ergonomics standard present in my workplace."

Another worker who lost her job was Mary, a nurse, who sustained a back injury and had to work on light duty for a year. Then her hospital told her to find another job because they did not have anything for her to do. Today she works at different part-time jobs in different locations and can no longer provide patient care. And there's Debra Teske, a customer service representative, diagnosed with bilateral carpal tunnel syndrome that required surgery on her right hand. Today, she has difficulty cooking, cleaning and picking up small objects. She can no longer kayak or bike, hobbies that she once enjoyed.

Beth Piknick is a registered nurse and also knows firsthand the importance of OSHA's proposed ergonomics program standard. While working as an ICU nurse, she suffered a career-ending back injury that was devastating, both personally and professionally. Throughout her career, Ms. Piknick helped patients move from their beds to chairs and back. Twisting, bending,

pulling and pushing were all part of the job. She never had any back problems. But on February 17, 1992, while helping move a patient, Beth severely injured her back. Physicians, surgeons, and physical therapists were not able to relieve the constant pain. Finally, two years after the injury Beth had spinal fusion surgery coupled with a major rehabilitation program. She was willing to endure whatever pain it took to return to the job she loved. Despite the surgery and the physical therapy, however, she cannot return to her job. Before her injury, Ms. Piknick was an active person who enjoyed bicycling, racquetball, waterskiing and yearly white water rafting trips with her family. Now, she cannot participate in any of those activities.

Women disproportionately suffer some of the most debilitating types of MSDs, such as carpal tunnel syndrome. This is not because women are more vulnerable to MSDs—but because a large number of women work in jobs associated with heavy lifting, awkward postures or repetitive motions. They hold a disproportionate number of jobs as nurses, cashiers, packagers, maids and house staff, assemblers and office workers. Consequently, women suffer 70 percent of the carpal tunnel syndrome cases and nearly 60 percent of the tendinitis cases that are serious enough to warrant time off work.

Workers should not have to suffer like this. Often solutions to mismatches between workers and their tasks are right at hand—simple, easy and inexpensive. But too many employers, especially small employers, have yet to realize the benefits of ergonomics and put protective programs in place. Fewer than 30 percent of employers with 20 or fewer employees have addressed ergonomics although more than 325,000 musculoskeletal disorders occur each year in smaller workplaces. In contrast, three-quarters of establishments with 500 or more employees have analyzed hazards and installed some engineering controls to decrease the risk of

musculoskeletal disorders.

### Real Solutions

Ergonomics has an impact beyond workers. This discipline has its roots in improving efficiency and productivity. For years, many employers have known that good ergonomics is often good economics. And those employers have not only saved their workers from injury and potential misery, but they have saved millions of dollars in the process. The proposed rule draws on the experience of companies that have implemented successful programs.

Many businesses—both large and small—have already demonstrated the value of ergonomics programs. University Nursing Center, a small nursing care facility in Oklahoma, instituted an ergonomics program focused on back-injury prevention. University Nursing Center presented its program to staff through lectures, videos, handouts and demonstrations. The facility purchased mechanical lifts and made them available throughout the establishment. In 1997 and 1998, this practical ergonomics program cut the rate of work-related injuries by almost 75% from their 1996 level, and reduced the number of associated lost workdays by over 85 percent.

An Ohio lumberyard, the Weyerhaeuser Customer Service Center, invited an ergonomist from the State of Ohio's Workers' Compensation program to survey their site. Based on the recommendations they received, the lumberyard developed checklists for use by each of their employees in evaluating the ergonomic appropriateness of the facility's personal protective equipment, mechanical equipment and overall workplace. The lumberyard completely redesigned their office workstations in 1994. As of July of last year, they had not had any lost-time injuries since strengthening their program.

Two Maine New Balance shoe manufacturing facilities cut their workers' compensation

costs from \$1.2 million to \$89,000 per year and reduced their lost and restricted workdays from 11,000 to 549 during a three-year period. New Balance achieved this by adding engineering controls, eliminating piecework, forming manufacturing teams, and rotating work activities.

Ultra Tool and Plastics, a small New York plastics products manufacturer, implemented an ergonomics program that cut back injuries by 70 percent and reduced associated lost workdays by 80 percent. Some solutions included: purchasing ergonomic chairs for production employees; providing back safety training; installing robot presses to eliminate the need for production employees to reach for parts; and making pallet jacks available for metal bins to allow height adjustments.

In 1996, Sysco Food Services of Houston, a food service distributor, had 201 injuries with 3,638 lost workdays. Sysco's back injuries accounted for almost 40 percent of the injuries and more than half the company's total workers' compensation costs. Most of the back injuries occurred in the warehouse and on delivery routes. Sysco formalized its ergonomics program under the leadership of its occupational health nurse. They instituted an early return to work policy. Workers were encouraged to report any symptoms. The company re-racked its warehouse and put brakes on the hand trucks. Sysco assessed its customers' locations for hazards during delivery and worked with its customers on improvements. Sysco also worked with its suppliers to get smaller bags, handles on packages, sturdier cardboard and lighter boxes. One year after implementing an ergonomics program, injuries dropped 25 percent, and the cost of workers' compensation cases was down by more than 45 percent.

Many solutions to ergonomic problems are common sense and inexpensive. OSHA has identified many solutions that cost less than \$100. For example, workers at a packaging plant

complained of leg and back fatigue. Their management installed footrests for standing posture workstations at a cost of \$50 each. At a manual assembly plant, a worker's job involved installing a small part with needle-nosed pliers that put stress on the wrist. The supervisor suggested another tool--available in the tool crib--that would make the task easier and safer without costing an extra dime. Another company recognized the need to make changes to their packaging line workstations because workers developed musculoskeletal disorders. They simply added a belt conveyor to move packaged boxes away from the workstation--at a cost of \$90.50 per worker. Employees in a poultry processing plant complained that ill-fitting protective gloves did not provide adequate protection. The company bought protective gloves from several manufacturers to provide a wide range of sizes for better fit. The cost was negligible. In many mechanical assembly companies, the use of hand tools injures small parts of workers' hands. Some companies have used tools padded with inexpensive materials to reduce injury, at minimal cost. These are only a few examples among many.

#### OSHA's Proposal

OSHA's proposed ergonomics program standard relies on a practical, flexible approach that reflects industry best practices and focuses on jobs where work-related MSDs occur, problems are severe, and solutions are generally understood. It would require general industry employers to address ergonomics--the fit between the worker and work--for manual handling and manufacturing production jobs, where we know the problems are most severe. And it requires other general industry employers to act when their employees experience work-related musculoskeletal disorders.

Under the proposal, about 1.6 million employers--those with manufacturing and manual

handling jobs—would initially need to implement a basic ergonomics program. This means assigning someone to be responsible for ergonomics; providing information to employees on the risk of injuries, signs and symptoms to watch for, and the importance of reporting problems early; and setting up a way for employees to report signs and symptoms. Full programs for these and other general industry employers would be required only if one or more work-related MSDs actually occurred. But even if a worker is hurt, the employer need not implement a full program if a “Quick Fix” can take care of the problem. If the employer corrects a hazard within 90 days, verifies that the fix has eliminated the hazard, and has no additional MSDs in that job, no further action is necessary. In addition, a “grandfather” clause gives credit to firms that already have implemented ergonomics programs that satisfy the core elements of the standard.

Under OSHA’s proposal, only 25 percent of those general industry companies that have fewer than 20 workers will be required to adopt basic ergonomics programs for one or more of their jobs involving manual handling or manufacturing production work. Over a 10-year period, about 900,000 of these small employers will need full programs because one or more of their workers will have experienced an MSD.

The OSHA proposal identifies six elements for a full ergonomics program: management leadership and employee participation; hazard information and reporting; job hazard analysis and control; training; MSD management; and program evaluation. OSHA intends that ergonomics programs be job-based, covering only the job where the risk of developing an MSD exists and any other jobs in the workplace that have the same work activities and conditions. Ergonomics programs need not cover all the jobs at the workplace. Nor are all MSDs covered. Rather, only MSDs caused by a work activity that is a core element of an employee’s job or a significant part

of her work day will trigger coverage.

The proposal would require that workers who experience covered MSDs receive a prompt response from their employer, including an evaluation of their injury and access to follow-up by a health care professional, if necessary. It also provides work restriction protection for workers when the employer or the employer's chosen health care professional has determined that restricted work is needed due to a work-related MSD.

Like other provisions of the proposal, OSHA obtained the views of a large number of stakeholders about the work restriction protection provision. For instance, during 1998, OSHA held stakeholder meetings throughout the country. In attendance at those meetings were representatives of the major insurance trade associations, including the Alliance of American Insurers, the American Insurance Association, and the American Insurance Services Group. These associations all have members who underwrite workers' compensation insurance. Also in attendance at these stakeholder meetings were individual workers' compensation insurance companies, including CIGNA, Liberty Mutual, and Travelers Insurance. Many of the insurance carriers mentioned the need for early reporting and return-to-work programs. In addition, I personally met on two different occasions with the International Association of Industrial Accident Boards and Commissions (IAIABC), once in June, 1999, and again in September, 1999. The IAIABC is an umbrella organization that represents the interests of a large number of state workers' compensation commissions. Our primary discussion during those meetings involved their concerns regarding the workability of the WRP provisions. The OSHA ergonomics staff has also met with IAIABC committees, and our staff continues to meet and receive comments from state workers' compensation administrators, most recently at the Western Governors Association

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meeting on April 12.

**Work Restriction Protection (WRP)**

I. **What does WRP Require?**

A number of OSHA's health standards include a provision to encourage employee participation in medical surveillance and medical management programs by requiring that, if it is necessary for health reasons to remove an employee from continued exposure to a hazard, the employee will be provided with temporary economic protection. In the proposed ergonomics standard, the provision is called work restriction protection, or WRP.

As defined in the proposed standard at section 1910.945, WRP means the maintenance of the earnings and other employment rights and benefits of employees who, based on the employer's decision or a health care professional's recommendation, are on temporary work restriction due to a work-related MSD. For employees who are on restricted work activity, WRP includes maintaining the wages and benefits they were receiving at the time they were placed on restricted work activity. For employees who have been removed from the workplace, WRP entails maintaining 90% of their net earnings and all of their benefits. Benefits include seniority, insurance programs, retirement benefits and savings plans.

The employer determines whether or not to place an injured employee on temporary work restriction or remove the employee from the workplace, but must follow the recommendation of the health care professional chosen by the employer if the health care professional determines that temporary work restrictions or removal from the workplace are needed to limit the employee's exposure to MSD hazards.

The obligation in the proposal to provide WRP ends as soon as one of the following

occurs: (1) the employee is able to return to his or her regular job or a permanent new position; (2) the job is changed to eliminate the MSD hazard or reduce it to the extent it does not pose a risk of harm to the injured employee; or (3) six months have passed.

Finally, the amount of the employer's WRP payment may be reduced by income the employee receives from other sources, such as workers' compensation, unemployment insurance, or income from a job taken with another employer during the time an employee is on work restrictions.

## II Why is WRP Necessary?

### A. Employee Reports of MSDs Trigger Coverage of the Standard.

Generally, OSHA standards are preventive in nature, requiring employers to take action before someone is hurt. In this proposal, however, most employers are not required to implement an ergonomics program until an employee reports a covered MSD. The effectiveness of this proposed standard, therefore, depends on the extent to which employees feel free to report injuries without penalty. If employees are reluctant to come forward and report MSDs in their early stages, serious MSD hazards in that job could go uncontrolled, thus potentially aggravating the MSD and placing every employee in that job at increased risk of harm.

### B. Early Reporting Prevents Serious Injury

During OSHA's public outreach process, every stakeholder who commented on this subject agreed that early reporting of MSDs is critical to preventing disease and to protecting workers. As Dr. Robin Herbert, M.D. of the Mount Sinai Center for Occupational and Environmental Medicine stated in her written testimony for the rulemaking:

Early reporting is critical to preventing tissue damage, ensuing pain and loss of

function. When employees fear reporting and fear participating in MSD management, injuries become worse.

Stakeholders that currently have ergonomics programs have told us they achieved dramatic reductions in the number and severity of MSDs once they implemented an effective early reporting process. By starting the process of MSD management at an early stage, before tissue damage is severe or permanent, disabling injuries can be prevented.

Because the WRP provisions only apply after an injury occurs, there are similarities between these provisions and state workers' compensation benefits. The purpose of the WRP provisions, however, is fundamentally different. Workers' compensation is primarily intended to provide wage replacement and medical benefits to employees who have been injured at work; the WRP provisions are intended to *prevent* serious disability. WRP is designed to ensure that MSDs are addressed before injuries become more severe.

### C. Many Employees Are Not Reporting MSDs

Despite the critical need for early reporting, there is evidence that, for a variety of reasons, as many as 50% of workers do not report their MSDs and other illnesses or seek workers' compensation for their injuries. The preamble contains a summary of 13 studies, covering hundreds of thousands of workers, that document this widespread under-reporting.

In a study of carpal tunnel syndrome (CTS) cases in a single county of California, for example, researchers compared the reported caseload of Santa Clara County health care providers with reports to the State. Of 3,413 cases of work-related CTS, only 71 had been reported to the State.

It is difficult to determine how much of such under-reporting results from non-compliance

by employers; but a great deal is caused by the reluctance of the employees themselves.

According to the authors of the 13 case studies, workers feared reprisal for reporting, they were discouraged by their supervisor and managers, they were deterred from filing for workers' compensation by the high rate of rejection of MSD claims, they wanted to avoid the "hassle" of filing workers' compensation claims, or they preferred to use their own health insurance rather than to use the workers' compensation system.

Some researchers have found there is good reason for employees to fear reprisal and to have low expectations of workers' compensation. In New York State, for example, the Mount Sinai Center for Occupational and Environmental Medicine has followed thousands of cases of employees diagnosed with work-related MSDs and found:

- Among hundreds of computer users diagnosed with upper extremity MSDs, 7% were fired when they reported an MSD, and 27% experienced a period when they received no income at all.
- Insurers routinely fight meritorious workers' compensation claims. Among employees diagnosed with Carpal Tunnel Syndrome, 79% had their claim denied initially by the insurer, even though 96% of these employees were ultimately found to have meritorious claims.
- Among hundreds of garment workers with MSDs, 87% reported going for some period of time with no income at all after reporting their MSD.

In the preamble to the proposed rule we cite recent research by Pransky, et al., who studied 98 workers employed by three industrial facilities. Fewer than 5% of the workers had officially reported a work-related illness or injury, though 50% had persistent work-related MSD problems

and 30% had either lost work time or been given work restrictions because of their disorder. The reasons they gave for their failure to report their MSDs to their employer are instructive: 26% had concerns regarding loss of job, status, or overtime; 25% said they assumed pain or discomfort were part of the job; and 10% feared disciplinary action.

Unfortunately, according to Professor Emily Spieler of West Virginia University College of Law, in many states employees have only limited protection from retaliation if they are absent from work because of a work-related illness such as an MSD:

The majority of states do prohibit direct retaliation for the filing of a claim. On the other hand, the legal protection offered to workers under the workers' compensation and related state laws is limited; in most states, workers who are absent as a result of an occupational injury or disease can be discharged pursuant to a neutral absence control policy, even if the cause of the absence is an occupational injury or disease. (Spieler 1994) This means that a worker can be fired after being absent for longer than a specified period, even if s/he is collecting workers' compensation temporary total disability benefits.

Employees need assurance that reporting an MSD or accepting assignment to light duty work that allows them to recover from their MSD will not lead to reprisals, loss of pay, or reduced benefits. Because we recognize, as do several members of the Subcommittee, that the OSH Act's "whistle blower" provisions are inadequate to provide the protection and assurance employees need to fully exercise their rights, the Administration forwarded to Congress last year legislation to strengthen section 11(c) of the Act. We hope Congress will take action on this legislation. WRP would supplement existing OSH Act protections by protecting employees from economic loss when they report work-related MSDs.

### III. Legal Authority for WRP

Section 6(b)(5) of the OSH Act directs OSHA to adopt the health standard that "most adequately assures, to the extent feasible, on the basis of the best available evidence, that no

employee will suffer material impairment of health or functional capacity” if exposed to a hazard over a working lifetime. Section 3(8) describes an “occupational safety and health standard” as a “standard which requires the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment.”

As discussed earlier, OSHA has proposed that the ergonomics standard, to most effectively assure that employees will not “suffer material impairment of health or functional capacity,” include provisions to overcome the current reluctance of employees to report MSDs at early stages, when tissue damage can be arrested and before other employees become injured.

Under a different name – medical removal protection (MRP) – OSHA has a number of times in the past included pay and benefit protection in its health standards as a way to encourage early reporting and participation in medical surveillance and management by injured employees. Standards that provide for MRP include Lead, Formaldehyde, Methylene Chloride, Methylenedianiline, Cadmium, and Benzene.

In United Steelworkers v. Marshall, 647 F2d 1189 (D.C. Cir. 1980), the U.S. Court of Appeals for the District of Columbia Circuit upheld OSHA’s authority to require MRP in the Lead standard. The court of appeals held that (1) the OSH Act gives OSHA broad authority to issue MRP, and (2) OSHA’s inclusion of MRP in the Lead standard was necessary and appropriate to protect the health of workers. OSHA demonstrated that lead disease is highly reversible if caught in early stages and provided evidence that employees would resist cooperating with the medical surveillance program absent assurance that they would have economic protection if removed from their jobs because of high blood-lead levels.

Arguments have been made that MRP in the Lead standard is fundamentally different from WRP in the ergonomics standards because WRP can be triggered by subjective signs and symptoms of MSDs such as pain and restricted movement, whereas MRP in Lead was triggered by objective measurements of lead in the blood of employees. When OSHA itself put forward a similar argument as a reason for not including MRP in the Formaldehyde standard, it was rejected by the court of appeals.

OSHA originally issued the Formaldehyde standard without MRP and argued that it was not appropriate because the nonspecificity of signs and symptoms made an accurate diagnosis of formaldehyde-induced irritation difficult, and the health effects from formaldehyde exposure resolved quickly.

In International Union v. Pendergrass, 878 F2d 389 (D.C. Cir. 1989), the U.S. Court of Appeals for the District of Columbia Circuit rejected OSHA's arguments and remanded the standard for reconsideration of the necessity of requiring MRP. The court stated that MRP was particularly appropriate in situations where employees recover quickly from the signs and symptoms of disease. On remand, OSHA amended the standard to include MRP.

In light of these decisions, OSHA included WRP in the ergonomics proposal. Under the proposal, employer coverage is triggered by employee reports of MSDs. The preamble to the proposal explains that the success of MSD management depends on early reporting, and that there is evidence that employees are, at present, reluctant to report MSDs because of the economic consequences. WRP is designed to counteract the present disinclination to early reporting.

The foregoing explanation of the WRP provision of the proposed rule is not, of course, the agency's final word on this matter. The Notice of Proposed Rulemaking specifically requested

information and comments on alternative approaches that would achieve the same goals. OSHA has received approximately 7,000 written pre-hearing comments on the proposed rule and is in the midst of nine weeks of public hearings where more than 1000 witnesses have indicated their intention to testify. Many commenters and witnesses have addressed the WRP provision. The agency expects to receive additional written comments on WRP and other issues from hearing participants during the 90-day post-hearing comment period.

Only after all of this information is received and analyzed will OSHA make a decision about whether WRP should be retained, and if so, whether it should be modified. OSHA's decision will be based upon the evidence in the record, and consistent with the legal requirements established by the OSH Act.

Mr. Chairman, thank you for this opportunity to provide the Subcommittee with information on OSHA's ergonomics proposal and the reasoning behind the proposed WRP provision. I will be pleased to answer any questions the Subcommittee members may have.

MAY 12 2000

The Honorable Barbara Lee  
U. S. House of Representatives  
Washington, DC 20515

Dear Congresswoman Lee:

Thank you for your letter of February 25, 2000, addressed to Secretary of Labor Alexis M. Herman, in which you express your strong support for the Occupational Safety and Health Administration's (OSHA) proposed Ergonomics Program Standard. I believe, as you do, that the scientific evidence supporting this proposed rule is strong and that America's workers have waited too long for these workplace protections. That is why I have directed my staff to work expeditiously to complete this important rulemaking.

Currently, OSHA is in the process of holding informal public hearings to solicit comments and data from interested parties who wish to express their concerns about the proposed standard. The Agency has scheduled nine weeks of public hearings beginning here in Washington, DC and continuing in Chicago, Illinois and Portland, Oregon. Holding these public hearings in other areas of the country will provide additional opportunities for the public to comment on the proposal. I believe this demonstrates, once again, our commitment to getting input from all sides.

Nearly two million workers in the United States experience a work-related musculoskeletal disorder (MSD) each year. Many of these MSDs could have been prevented by measures such as those outlined in the OSHA proposed standard. I appreciate your support of our efforts here at OSHA to protect American workers and hope that we can count on your continued support in finalizing the ergonomics standard without further delay.

Sincerely,



Charles N. Jeffress  
Assistant Secretary

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515**

February 25, 2000

The Honorable Alexis Herman  
Secretary  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, D.C. 20210

Dear Ms. Secretary:

We are writing to express our strong support for the Department of Labor's (DOL) proposed ergonomics program standard published in the Federal Register (64 Fed. Reg. 65768) November 23, 1999. After ten years of deliberations by the agency, studies by the National Institutes for Occupational Safety and Health (NIOSH) and the National Academy of Sciences (NAS), and numerous related congressional hearings, the foundation has been firmly established for an ergonomics standard that protects American workers.

The Occupational Safety and Health Administration's (OSHA) draft ergonomics standard reflects sound science, good medicine and solid economics. The approach of OSHA's proposed standard—to require the development of ergonomics programs for operations and jobs where workers face significant risks of developing musculoskeletal disorders—is sound. This standard is also consistent with the good industry practices that many employers have already implemented.

Work-related musculoskeletal disorders (WMSDs) constitute the biggest safety and health problem in the workplace today, accounting for more than one third of all serious workplace injuries and annually affecting nearly two million workers and causing 650,000 workers to lose work time. These disorders annually cost businesses \$15-\$20 billion in workers compensation costs, with total costs estimated at \$60 billion.

In 1990, then Secretary of Labor Elizabeth Dole made the decision to develop an ergonomics rule. Secretary of Labor Lynn Martin initiated the rule-making with a request for comment in 1992. Despite Congressionally forced delays, many employers have voluntarily implemented effective ergonomics programs and reduced workers' injuries while enhancing competitiveness. However, too many employers have not taken these steps.

In the time since Secretary Dole's decision, millions of workers in this country have developed painful, often crippling, illnesses of the hand, arm, shoulder and back. Too often, these illnesses could have been prevented. Working Americans have waited for ten years for the federal government to offer an ergonomics standard that protects them from musculoskeletal disorders.

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Frequently, inexpensive changes, slight modifications and simple adjustments would have saved workers pain and suffering and save employers' real bottom-line costs. We believe that when finalized and implemented, the Department's proposed ergonomics standard will significantly reduce injuries and will result in substantial savings for employers. By preventing 300,000 worker injuries and saving a total of more than \$4 billion - even after factoring in employer costs - DOL's standard will benefit both the business community and America's working men and women.

The Occupational Safety and Health Review Commission addressed the issue of whether there is sufficient scientific basis to support OSHA's ergonomics enforcement case. In Pepperidge Farm, Inc. case (OSHRC Docket No. 89-0265, April 26, 1997), the Commission extensively reviewed the state of the scientific literature on back and repetitive motion work-related musculoskeletal disorders (WMSDs) as it existed in 1990. The Commission concluded that the body of evidence, even at that time, demonstrated a causal connection between these MSDs and workplace risk factors.

We recognize that DOL's best efforts have been frustrated by Congressionally mandated delays that have prevented DOL from moving forward with its Ergonomics standard. Despite these delays, your decision last year to release a draft proposed ergonomics standard provided all involved parties with an extra option to participate in the development of this standard and was appreciated by all participants. This option, your extensive public hearings, and the public comment period provide all interested parties with ample opportunities to comment and register their opinions. We believe your decision to extend the public comment period even longer, past its original deadline, demonstrates your commitment to input from all sides. Overall, we commend your efforts in balancing the varied interests on this issue while addressing the urgent need to protect America's workers. America's workers have waited too long for these workplace protections. We hope Congress will no longer interfere in DOL's standard setting and allow DOL to finalize the ergonomics standard without further delay.

Thank you for your leadership on issues of importance to the business community and America's working men and women.

Sincerely,

  
WILLIAM CLAY, MC

  
NANCY PELOSI, MC

  
MAJOR OWENS, MC

  
RICHARD GEPHARDT, MC

  
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**STATEMENT OF CHARLES N. JEFFRESS  
ASSISTANT SECRETARY FOR OCCUPATIONAL SAFETY AND HEALTH  
U.S. DEPARTMENT OF LABOR  
BEFORE  
THE SUBCOMMITTEE ON EMPLOYMENT, SAFETY AND TRAINING  
OF THE  
SENATE HEALTH, EDUCATION, LABOR AND PENSIONS COMMITTEE  
JULY 13, 2000**

Mr. Chairman, members of the Subcommittee, thank you for inviting me to testify about the Occupational Safety and Health Administration's (OSHA) proposed ergonomics program and its possible impact on Medicaid, Medicare, and other health care costs.

**Introduction**

Work-related musculoskeletal disorders (MSDs) are the most widespread occupational health hazard facing our Nation today. Nearly two million workers suffer work-related musculoskeletal disorders every year and about 600,000 lose time from work as a result. Although the median number of lost workdays associated with these incidents is seven days, the most severe injuries can put people out of work for months and even permanently disable them. The direct costs attributable to MSDs total \$15 to \$18 billion per year, with indirect costs (such as resulting management costs or the cost of production losses) increasing the costs to employers to more than \$45 billion.

In the health care sector, the Bureau of Labor Statistics reports that there were nearly 90,000 MSDs resulting in days away from work in 1998. Almost fifteen percent of MSDs in private industry occurred in the health care sector -- largely in hospitals and nursing homes, and often due to lifting and moving patients. In addition, witnesses at OSHA's public hearings representing employees in sonography testified that as many as 75% of technicians doing

ultrasound suffer from MSDs. OSHA estimates that workers' compensation for MSDs in the health sector cost \$2.8 billion in 1996, with total indirect costs estimated to be about \$5.8 billion.

### Real People

The human dimension of this problem in the health care industry is striking. Women, in particular, experience a high number of MSDs, because a large number of women work in health care jobs – nurses, nurses aides, orderlies, and attendants – associated with heavy lifting or awkward postures.

For example, Beth Picknick, a registered nurse working in an ICU unit, suffered a career-ending back injury that was devastating, both personally and professionally. Throughout her career, Ms. Picknick helped patients move from their beds to chairs and back. Twisting, bending, pulling and pushing were all part of the job. She never had any back problems. While helping to move a patient, Ms. Picknick severely injured her back. Physicians, surgeons and physical therapists were not able to relieve the constant pain. Finally, two years after the injury, Ms. Picknick had spinal fusion surgery coupled with a major rehabilitation program. She was willing to endure whatever pain it took to return to the job she loved. Despite the surgery and the physical therapy, however, she cannot return to her job. Nor can she participate with her family in bicycling, racquetball, waterskiing or the yearly white water rafting trips she used to enjoy.

Similarly, another nurse at another workplace developed carpal tunnel syndrome in both wrists due to manually cranking beds and pushing tables and shower chairs with bad castors. Sometimes she cannot feed herself. She is on complete disability and awaiting four surgeries,

one on each wrist and one on each shoulder. She says that if the health care facility had had proper equipment, this might not have happened. Workers like these are why it is important for OSHA to issue its ergonomics regulation.

### OSHA's Proposal

Ergonomics has its roots in improving efficiency and productivity. For years, many employers have known that good ergonomics is often good economics. And those employers have not only saved their workers from injury and potential misery, but they have saved millions of dollars in the process. OSHA has spent 10 years studying this issue, analyzing evidence, reviewing data, talking to stakeholders, and discussing ideas and options. It is now time to act.

OSHA's proposed ergonomics program standard draws on the experience of companies that have implemented successful programs. The proposed standard relies on a practical, flexible approach that reflects health care industry best practices and focuses on jobs where work-related MSDs occur, problems are severe, and solutions are generally understood. It would require health care industry employers to address ergonomics for manual handling jobs, where we know the problems are most severe. In other jobs, it would require health care employers to act when employees report work-related MSDs.

Opponents of OSHA's proposed rule say it would have an adverse effect by increasing the costs of services for patients who depend on Medicare and Medicaid. To the contrary, I believe the benefits of ergonomics programs will greatly exceed the costs, which will be comparatively small in the context of total Medicare and Medicaid expenditures. Any potential costs will be more than offset for the health care sector because the benefits of the standard will

likely far outweigh the costs. An ergonomics program standard can help hospitals and nursing homes reduce Medicare and Medicaid expenses by improving the productivity of health care workers through the reduction of costly injuries to staff. For example, a standard portable device for lifting patients can be purchased for \$3,000. The average cost of back surgery, according to Health Care Financing Administration (HCFA) data is \$16,072. And this figure does not include indemnity payments for the injured worker's lost time or replacement costs. In any case, OSHA estimates that the potential costs of the ergonomics program standard to the health care sector in 1996 would have been \$644 million (in 1996 dollars) -- less than 0.2 percent of Medicare and Medicaid costs in that year. These costs would not significantly contribute to growth in Medicaid and Medicare costs. The annual costs of OSHA's proposed ergonomics program to the health care sector -- even assuming no benefits from the standard -- represent less than one percent of the projected increase in Medicare and Medicaid costs from 2000 to 2005.

OSHA believes there is substantial evidence to show that ergonomics programs can save workers' compensation costs, increase productivity, and decrease employee turnover. MSDs are preventable, and there are innumerable examples of health care employers who have succeeded in finding different ways to protect their workers from sometimes disabling injuries. In one study, a nursing home reduced lost workdays from back injuries by 50 percent after implementing a comprehensive ergonomics program. Another nursing home reduced lost workdays by 89 percent after its employees began using patient-lifting devices. One hospital reduced back injuries by 94 percent and significantly improved nursing productivity by having a trained-lift team perform 95% of all patient lifts. These types of ergonomic solutions in the health care industry are not new, nor are they limited to the United States. The United Kingdom

has implemented a general policy of eliminating hazardous manual lifting of patients except in life-threatening situations.

I have attached to my testimony a chart that lists dozens of health care providers across the United States who have implemented successful ergonomics programs. In the State of Maine, hospitals and nursing homes as well as home health care providers have reduced MSDs and related costs by implementing ergonomics programs. For example, the Kennebec Health System of Augusta, Maine, reduced annual lost workdays from 1,097 to 48 after it implemented an ergonomics program and began using lift-assist devices. As a result, their insurance premium fell from \$1.6 million annually to \$770,293 – a cost savings of more than \$800,000. Another health care system, Sisters of Charity Health System in Lewiston, Maine, reduced its workers' compensation costs for work-related MSDs by about 30 percent between 1994 and 1996 after introducing and implementing patient-lifting equipment. A nursing home, St. Joseph's Manor Inc. of Portland, Maine, reduced their total occupational injuries and illnesses by 40 percent after implementing an ergonomics and safe-lifting program. And home health care providers such as Androscoggin Home Health Services in Lewiston, Maine, cut their workers' compensation costs by 50 percent after emphasizing safe-lifting techniques and back biomechanics.

The successful ergonomics programs and experiences of these health care providers are not an isolated occurrence, according to the hearing testimony of Mr. Carl Siegfried, of Maine Employers Mutual Insurance Company (MEMIC), the state's largest provider of workers' compensation insurance. Mr. Siegfried testified at the hearing on the proposed ergonomics rule that his insurance company represents all kinds of health care providers. None of the providers they insure have found ergonomics programs and controls to be unsuccessful or infeasible and

none have been driven out of business. Moreover, Guy Fragala, Director of Environmental Health and Safety at the University of Massachusetts Medical School, testified that a study done by MEMIC "demonstrated a drop in medical and indemnity costs from lifting injuries from \$75,000 in 1993 to less than \$5,600 in 1997." This drop followed the implementation of an Ergonomic Management Program with a "no manual lift" policy as the program's cornerstone.

The success of ergonomics programs and controls is not limited to Maine providers. I would like to highlight a few more of the success stories here:

- University Nursing Center of Enid, Oklahoma cut the rate of work-related MSDs by 75 percent from 1996 to 1998 and reduced lost workdays by more than 85 percent through its ergonomics program.
- In just two years, an ergonomics program at Lovely Hill Nursing Home in Pawling, New York, led to a 75 percent decline in the lost-time injury and illness rate and a reduction in days lost to MSDs from 287 to 37.
- Between 1995 and 1997, Hallmark Nursing Centre in Troy, New York, lowered their annual rate of total lost-time injuries and illnesses from 23.5 to 9 after implementing an ergonomics program.
- Between 1994 and 1998, after putting into place a safety and health program and an ergonomics program, ergonomic-related back injuries at Citizens Memorial Hospital in Bolivar, Missouri, decreased from 20 to 3. Citizens estimates that it has saved \$300,000 per year as a result.
- From 1995 to 1997, Delmar Gardens North, a Florissant, Missouri, nursing care facility, implemented an ergonomics program and reduced by 50 percent the rate of back injuries

among its staff nurses aides and the lost workday rate associated with those injuries.

- North Village Park, a nursing care facility in Moberly, Missouri, bought new lifting equipment and reduced the number of lost work days from 473 in 1995 to 16 in 1997.
- Sunnyrest Health Care Facility in Colorado Springs, Colorado, reduced their rate of workplace lost-time injuries by 75 percent between 1996 and 1998 after improving their ergonomics program by adding patient-lifting assists to reduce the risk of injury associated with resident transfer.
- After putting an emphasis on their ergonomic-lifting safety program, Laurel Center in Harrisburg, Pennsylvania, reduced their rate of ergonomic-related back injuries by more than two-thirds in 1999.

These successful programs show that ergonomics programs like those to be implemented by employers under OSHA's proposal often reduce costs rather than increase them. Many employers with successful ergonomics programs have included the same basic elements in their programs that you will find in our proposal: They look at the jobs where employees are getting hurt or reporting pain. Where they find a problem, they fix the jobs in a way that is appropriate to their workplace. Knowing that early intervention saves money and preserves health, they make sure their employees receive early and effective medical management and pay attention to recommendations for light duty or other measures. They train employees on how to use patient-lifting devices and other good patient transfer procedures. Finally, they evaluate their ergonomics programs to see what is working and what may still need improvement.

Some commentators also have expressed concern about the proposed standard's potential effects on the rights of patients and nursing home residents. A number of nurses and nurses aides

testified at the OSHA ergonomics hearings that most patients welcome the use of patient-lifting devices because it makes them feel more secure and reduces their fear of falling or being dropped. These workers also told OSHA about patients suffering skin tears, broken hips, and shoulder dislocations when there are slips or falls during manual lifting procedures. One nurses aide noted that occasionally patients have been reluctant to use lifts, but that after someone speaks with them and demonstrates the enhanced safety that is provided for them and for staff, the patients prefer the lift. Hospitals and nursing homes that use patient-lifting devices have found them safer and more secure for patients and have found that few, if any, patients refuse them. In any case, while the employment of patient-lifting devices is very effective in reducing ergonomics hazards, there are other means of complying with the proposed standard, such as trained manual lifting teams. I can assure you that OSHA will work with employers to ensure that patients' rights are respected. OSHA will not issue citations where a patient refuses the use of a mechanical lift and the employer provides other means of complying with the standard.

### **Conclusion**

Since March, we have held nine weeks of public hearings across the country in Washington, D.C., Chicago, Portland, Oregon, and Atlanta. We've heard from more than 1,000 witnesses, and we've received more than 7,000 public comments -- many from the medical community -- on our proposed standard. We are continuing to evaluate all that we've heard and all that we've read. But to my knowledge, the evidence is overwhelming: Ergonomics is good business in the health care industry, just as it is in the rest of general industry.

Mr. Chairman, thank you for this opportunity to provide the Subcommittee with information on OSHA's ergonomics proposal. I will be happy to respond to any questions.

## SUCCESSFUL ERGONOMICS PROGRAMS IN THE HEALTH CARE SECTOR

State	Company	Employees	Program Highlights
California	Vale Health Care Center	70	Reduced the number of back injuries from 10 per year to 1.
Colorado	Centura Health	130	By strengthening their ergonomics program in 1996, this employer cut their rate of related lost time injuries in half in 1997.
Colorado	Community Care of America	70	Community Care implemented an ergonomics program in 1996 and was able in the first year to achieve a 50% reduction in their rate of associated workplace injuries.
Colorado	Rose Health Care	Not available	Cases receiving immediate intervention showed a reduction in compensation costs.
Colorado	Sunnyrest Sanitorium Dba Sunnyrest Health Care Facility	121	By beginning to improve their ergonomics program in 1996 and continuing to do so, this health care facility was able in two years to reduce their rate of workplace lost time injuries by 75% and the lost work days associated with them by two-thirds.
Connecticut	Hospital of Saint Raphael	Not available	Lost work days resulting from patient transfer injuries dropped 15.9 to 13.1 days in 6 months.
Florida	Bayside Manor	130	Compared with 1997 rates, Bayside Manor in 1998 cut their incidences of total lost time injuries and back injuries by over 50%. The severity of those injuries was also greatly reduced.
Florida	Cypress Rehabilitation and Healthcare Center	125	After aggressively training their staff on proper lifting techniques in 1997, this employer's incidence of related back injuries and upper extremity musculoskeletal disorders in 1998 was reduced by 80%. The severity of those injuries that did occur, as reflected in the number of lost working days associated with them, was also down significantly.

State	Company	Employees	Program Highlights
Georgia	Dogwood Health & Rehabilitation	66	While it was already half way through 1997 when Dogwood strengthened their ergonomics program, their rate of lost time injuries and the number of associated lost work days were both still down by 50% for the year, compared to 1996 levels.
Georgia	NHC Healthcare-Rossville	109	After implementing an ergonomics program in 1997, this small health care facility achieved a 50% reduction in their related injury experience.
Illinois	Sunny Hill Nursing Home	300 beds	After suffering a rash of overexertion injuries, they established an ergonomics program and an immediate significant drop in injuries.
Maine	Androscoggin Home Health Services	520	Between 1992 and 1996 this home health care provider's ergonomics program emphasizing safe lifting techniques and back biomechanics cut their workers' compensation costs by 50%.
Maine	Kennebec Long Term Care	250	Implementation of an ergonomics program aimed at patient transfer in a nursing home has reduced associated back injuries by 80% and lost workdays by more than 90%.
Maine	St Joseph's Manor Inc.	270	Three years after being invited to join the Maine 200 Pilot Program this nursing care employer's ergonomics and safe lifting program had reduced their total occupational injuries and illnesses by 40%.
Maine	Sisters of Charity Health System	780	In an industry with one of the highest incidence rates, SOCHS achieved a 35% reduction in workers' compensation costs for WMSDs over two years.
Missouri	Citizens Memorial Health Care Facility	110	Ergonomic injury incidence and severity rates were reduced more than 50%; 100,000 in direct cost savings were realized.

State	Company	Employees	Program Highlights
Missouri	Delmar Gardens North	170	From 1995 to 1997, the ongoing implementation of this nursing care facility's ergonomics program resulted in a 50% reduction in both the rate of back injuries incurred by its staff nurse aides and the lost work day rate associated with those injuries.
Missouri	North Village Park LLC	158	By strengthening their ergonomics program in 1996, this nursing care facility reduced their rate of related occupational injuries from 1995 to 1997 by more than 75%, and cut the number of lost work days associated with those injuries from 473 in 1995 to 16 in 1997.
New Mexico	Presbyterian Health Care Services	Not available	Reduced rate of work-related back injuries.
New York	Lovely Hill Nursing Home	90	The ergonomics program in place at this nursing care facility reduced the overall lost time injury and illness rate by 75% between 1996 and 1998. Lost time back injuries and upper extremity musculoskeletal disorders declined from 9 to 2 cases in the same period, and the number of lost work days associated with them went from 287 to 37.
New York	Hallmark Nursing Centre	78	Between 1995 and 1997 the Hallmark ergonomics program lowered their rate of total lost time injuries and illness rate from 23.5 to 9.0. Over this same time interval their number of lost time back injuries and upper extremity musculoskeletal disorders declined from 10 to 5 cases and the number of lost work days associated with them went from 423 to 185.
New York	Eden Park Nursing Home	82	The ergonomics program implemented by Eden Park reduced the total number of lost time back injuries and upper extremity disorders from 7 in 1996 to 2 in 1997 and in 1998. The number of lost work-days associated with these cases went from 170 to 124 to 44 in the same time period.

State	Company	Employees	Program Highlights
New York	Hornell Gardens Nursing Home	133	Since strengthening their ergonomics program in 1996, this mid-sized health care facility has seen their overall lost time injury and illness rate, as well as their lost time back injury rate decreased by over a third. The lost time associated with these back injuries was cut by over 50%.
New York	Iroquois Nursing Home Inc.	184	The ergonomics program at this mid-sized nursing care facility reduced the rate of total lost time injuries and illnesses, and the number of back injuries and upper extremity musculoskeletal disorders by approximately 50% between 1996 and 1998.
New York	Lakeside Nursing Home Inc.	300	After strengthening their ergonomics program at the start of 1997, Lakeside experienced a decline in their overall lost time occupational injury and illness rate of more than a third, and the lost time associated with these incidents was reduced by more than 50%.
New York	Margaretville Nursing Home	115	After implementing an ergonomics program in 1996 Margaretville had a 95% decrease in lost work days associated with ergonomic related injuries. As of May of 1998, they had experienced only one recordable back injury with one day of lost work.
New York	The Meadows and Westfall Inc.	201	The ergonomics program at this mid-sized nursing care facility reduced the rate of total lost time injuries and illnesses, and the number of back injuries and upper extremity musculoskeletal disorders by 40% between 1996 and 1998.
New York	Saint Francis Home of Williamsville	195	In the first year following initiation of their ergonomic program, their lost workday injury incidence rate was cut in half.

State	Company	Employees	Program Highlights
Oklahoma	University Nursing Center	77	In 1997 and 1998 the practical ergonomics program stressing safe mechanical lifting techniques at this small nursing care facility, cut the rate of related workplace injuries by almost 75% from what they were in 1996, and reduced the number of associated lost work days by over 85%.
Oklahoma	Infinity Care Systems Inc.	98	This small employer in an industry with a recognized high risk of ergonomic-related musculoskeletal injuries has managed since it opened in 1996 to achieve a remarkably low rate of such injuries and to practically eliminate any associated lost work-days. They credit their ergonomics program, which emphasizes bio-mechanics.
Oklahoma	Jan Francis Care Center LLC	104	From 1996 to 1998 the applied ergonomics program in place at this small establishment cut the number of ergonomic-related injuries and the lost work days associated with them by 80%.
Oklahoma	Mariner Health of Bethany	160	This employer credits OSHA's CCP program with giving them the kick start to become proactive with respect to worker safety. Since 1996 their practical ergonomics program addressing resident lifting hazards has cut their rate of related injuries by two thirds, and the rate of lost work days associated with those injuries by more than half.
Pennsylvania	Brevillier Village (Ball Pavilion)	160	Implementation of a patient lifting ergonomics program has reduced work-related injuries workers' compensation costs by 90%.
Pennsylvania	Church of the Brethren Home	190	Work-related injuries declined by 68 percent.

State	Company	Employees	Program Highlights
Pennsylvania	Laurel Center	233	After undergoing a recent management change and putting new emphasis on their ergonomic lifting safety program, this mid-sized healthcare facility reduced their rate of ergonomics-related back injuries by more than two thirds in 1999 and almost eliminated their upper extremity musculoskeletal disorders.
Pennsylvania	York Hospital	3,600	In 1994, back injuries dropped by 43%, the lost work day rate declined 55% and workers' compensation costs decreased 43%.
Texas	IHS of Texoma at Sherman	156	Since instituting their ergonomics program early in 1997, this small nursing care facility over the next two years cut their number of ergonomics-related injuries by two thirds, and reduced the number of lost work days associated with them by over 85%.
Texas	Mulberry Manor	88	By instituting an ergonomics program in 1997 this small nursing care facility was able to cut their rate of ergonomics-related injuries in half in each of the succeeding two years and cut the associated lost work days by more than 90%.
Texas	WestSide Campus of Care	125	After instituting an ergonomics program, this small nursing care facility cut their incidence of repetitive trauma-related musculoskeletal injuries by 75% and the number of associated lost work days by 85% between 1996 and 1998.
Wisconsin	West Allis Health Care	90	In 1997 this small nursing care facility instituted an ergonomics program focused on back injury prevention that significantly reduced their incidences of cumulative trauma related injuries and sharply reduced the severity of those that did occur, based on the numbers of lost and restricted work days associated with them. In particular, severity measures were down more than 90%.

State	Company	Employees	Program Highlights
Wisconsin	Lincoln Lutheran Convalescent Center	144	In the first year following the implementation of an ergonomics program in 1996, Lincoln Lutheran reduced their ergonomics-related lost time injuries by two-thirds and the lost days associated with them from 748 to 111.