



## Office of Advocacy

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### Report of the Small Business Advocacy Review Panel on the Draft Proposed Ergonomics Program Rule

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#### 1. INTRODUCTION

This Report has been developed by the Small Business Advocacy Review Panel consisting of representatives of the Occupational Safety and Health Administration (OSHA), the Office of Advocacy (Advocacy) of the Small Business Administration, and the Office of Information and Regulatory Affairs (OIRA) of the Office of Management and Budget for the proposed ergonomics program rule that OSHA is currently developing. On March 2, 1999, OSHA's Small Business Advocacy Panel Chair convened this panel under section 609(b) of the [Regulatory Flexibility Act](#) (RFA), as amended by the [Small Business Regulatory Enforcement Fairness Act](#) (SBREFA). Section 609(b) requires the convening of a review panel prior to the publication of any [Initial Regulatory Flexibility Analysis](#) that an agency may be required to prepare under the RFA. In addition to the chair, Marthe Kent, the panel consists of the Associate Solicitor for Occupational Safety and Health, Joseph Woodward; the senior OSHA economist for this rule, Robert Burt; the Acting Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget, Don Arbuckle; and the Chief Counsel for Advocacy of the Small Business Administration, Jere Glover.

This Report provides background information on the proposed rule being developed and the types of small entities that would be subject to the proposed rule, describes the Panel's efforts to obtain the advice and recommendations of representatives of those small entities, summarizes the comments that have been received to date from these representatives, and presents the findings and recommendations of the Panel. The complete written comments of the small entity representatives are attached as Appendix A of this Report.

Section 609(b) of the RFA directs the review panel to report on the comments of small entity representatives and make findings about issues related to certain elements of the [Initial Regulatory Flexibility Analysis](#) (IRFA), as outlined in Section 603 of the RFA:

- a description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;
- a description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirements and the type of professional skills necessary for preparation of the report or record;
- an identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap or conflict with the proposed rule; and

a description of any significant alternatives to the proposed rule that accomplish the stated objectives of applicable statutes (in this case the OSH Act) and that minimize any significant economic impact of the proposed rule on small entities.

This Panel Report will be provided to the Assistant Secretary for OSHA, and OSHA must include this Report in the rulemaking record. OSHA may also, as appropriate, modify the proposed rule, the Initial Regulatory Flexibility Analysis, or the decision as to whether an [Initial Regulatory Flexibility Analysis](#) is needed, based on the Panel's recommendations.

It is important to note that the Panel's findings and discussions are based on the preliminary information about the draft proposed ergonomics program rule available at the time this Report was drafted. OSHA is continuing to conduct analyses relevant to the proposed rule, and additional information will be developed or obtained during the remainder of the regulatory development process. The Panel makes its Report while development of the proposed rule is still underway, and its Report should be considered in that light. At the same time, the Report provides the Panel and OSHA with an opportunity to identify and explore potential ways of shaping the proposed rule to minimize the burden of the rule on small entities while achieving the rule's statutory purposes (i.e., the protection of workers from the significant risk of incurring musculoskeletal disorders on the job). Any options the Panel identifies for reducing the rule's regulatory impact on small entities may require further analysis and/or data collection to ensure that the options are practicable, enforceable, and consistent with the Occupational Safety and Health Act.

## **Background**

In response to the growing body of literature on the relationship between musculoskeletal disorders and the work environment, the OSHA Training Institute offered its first course on ergonomics in 1983. In 1986, OSHA began a pilot program aimed at the reduction of back injuries that involved a review of injury records during inspections and recommendations for training or job redesign using NIOSH's Work Practices Guide for Manual Lifting. As part of that effort, the Agency requested information on ways of reducing back injuries in general industry that resulted from manual lifting.

In 1987, OSHA issued its first citation for ergonomic hazards under the General Duty Clause, Section 5(a)(1) of the OSH Act; automotive plants received the first General Duty Clause citations, and, in 1988, the Agency issued such citations to several meat packing plants. A series of corporate-wide settlement agreements followed, affecting hundreds of plants. In late 1988, several employers asked OSHA to develop a standard addressing ergonomic issues. In 1990, the Agency published its voluntary ergonomics guidelines for the red meat industry. In a broader educational effort, the Agency later published a 24-page booklet, "Ergonomics: The Study of Work," as part of a nationwide educational and outreach program to raise awareness and reduce the incidence of cumulative trauma disorders.

In 1991, the United Food and Commercial Workers Union and the AFL-CIO petitioned OSHA to issue an emergency temporary standard to address ergonomic issues. In response, OSHA published an Advance Notice of Proposed Rulemaking on ergonomics in 1992. The Agency drafted a proposed ergonomics standard in 1995 and conducted an extensive series of stakeholder meetings. A Congressional rider prohibited the Agency from issuing a proposal until the rider expired on September 30, 1998. In 1997, California issued its own ergonomics regulation, and North Carolina and Washington state are currently developing their own ergonomics rules. In November of 1998, Congress asked the National Academy of Sciences (NAS) to conduct another study of MSDs (see Table 1 for history of previous NAS studies) in the workplace that will be completed in 24 months. The NAS study will cover: an assessment of the biomechanical literature; an examination of the literature on links between MSDs and job characteristics, work organization and non-work-related activities; a review of data characterizing the incidence of MSDs in the workplace; an evaluation of the state of knowledge on prevention strategies; an examination of the effects of changes in work and the workforce on prevention strategies; and recommendations for research.

Table 1 provides, for background purposes, a summary of OSHA's reasons for developing the draft ergonomics program rule.

### **1. OSHA's Reasons For Developing The Draft Ergonomics Program Rule**

In 1996, the Bureau of Labor Statistics reported 647,000 lost workday musculoskeletal disorders (MSDs), accounting for 34% of all lost-workday injuries and illnesses. OSHA estimates that such disorders account for more than \$20 billion in direct costs for workers' compensation and as much as \$80 billion more in indirect costs.

BLS data show that MSDs like carpal tunnel syndrome cause, on average, more days away from work than the average workplace injury. On average, MSDs with lost workdays require 40% more time away from work than other injuries and illnesses with lost workdays. Some MSDs are particularly severe. More than 42% of carpal tunnel syndrome cases involve more than 30 days away from work. A number of follow-up studies of these workers indicates a long history of crippling disability. For example, a study by Kemmlert et al. (1993) found that, of 195 persons who reported work-related MSDs, one-third had been on sick leave for more than 6 months during the year following the report of injury. Three years after the initial report, 78% continued to have symptoms, and fully half of these workers reported a worsening of symptoms over this period. The average cost of a workers' compensation claim for low back pain is \$8,321, about twice the amount for the average workers' compensation claim.

Many employers have realized, however, that many of these disorders are preventable by the modification of work processes. MSDs have been studied extensively, and the literature on these disorders now represents one of the largest data bases of human epidemiological evidence accumulated for any occupational health hazard. A data base of 600 studies was reviewed by NIOSH in 1997; these studies consistently showed increased levels of risk among workers exposed to the job-related risk factors the draft proposed standard is designed to address (e.g., repetition, force, vibration, awkward posture, lifting ).

At the request of Congress, the National Academy of Sciences reviewed the epidemiological evidence on MSDs and concluded in 1998 that:

- "musculoskeletal disorders are a serious national problem..."
- These problems are caused by work and non-work activities.
- There are [workplace] interventions that can reduce the problems."

At the request of Congress, the General Accounting Office (GAO) in 1997 released a study of ergonomics programs in a variety of businesses. According to the GAO:

"...the processes used by the case study facilities to identify and control problem jobs were typically informal and simple and generally involved a lower level of effort than was reflected in the literature. Controls did not typically require significant investment or resources and did not drastically change the job or operation.

"Officials at all the facilities we visited believed their ergonomics programs yielded benefits, including reductions in workers' compensation costs associated with MSDs. These facilities could also show reductions in overall injuries and illnesses as well as in the number of days injured employees were out of work; in some cases, however, the number of restricted workdays increased as a result of an increased emphasis on bringing employees back to work. Facility officials also reported improved worker morale, productivity, and product quality..."

Over time, the demand for an ergonomics standard has arisen out of the recognition that a significant occupational hazard exists, is preventable, but that employers need direction on how to satisfy their legal obligation to minimize musculoskeletal hazards in the workplace.

Employers, rather than trying to satisfy a shifting quilt of state standards on ergonomics, would have one federal standard to comply with. Employers can be educated on the value of ergonomics, but frequently are reluctant to make an initial investment absent a government standard that creates a level playing field for all employers. Moreover, while larger employers are more likely to be fully experience-rated with regard to injuries, smaller employers may be only partly experience-rated or not experience rated at all. For these smaller employers, the need to regulate is particularly compelling.

## **2. OSHA's OVERVIEW OF THE DRAFT PROPOSED ERGONOMICS PROGRAM RULE**

To ensure that the draft proposed rule could be applied to the great variety of workplaces in general industry, OSHA has developed a tiered rule designed to adjust the scope of the program to the extent of the MSD problem in a given workplace. The draft proposed rule would require employers with production manufacturing operations and manual handling jobs to:

- demonstrate management leadership and develop ways for employees to report problems, get responses and be involved in the program;
- review existing records, set up a reporting system, and provide information so employees can recognize and report problems.

If a work-related MSD is reported or the employer knows a hazard exists, then, under the draft proposed rule, the employer would have to:

- analyze problems jobs, implementing measures to eliminate or control the hazards to the extent feasible;
- provide training about work-related MSD hazards and the employer's program to control these hazards;
- make available to employees prompt access to medical management for work-related MSDs, and any necessary follow-up. The employer would provide for recommended work restrictions during the recovery period, as necessary;
- retain the worker's pay and benefits during the recovery period, for up to 6 months; and
- evaluate the program and controls to ensure that these comply with the rule.

Each of these requirements is described in the draft proposed rule in a plain language, question and answer format. Each provision is written broadly to allow employers flexibility in application so that compliance can differ in small and large firms, in technologically simple and complex environments, and in low and high hazard firms.

### **3. APPLICABLE SMALL ENTITY DEFINITION**

To define small entities, OSHA used, to the extent possible, the Small Business Administration (SBA) industry-specific criteria published in [13 CFR Section 121](#). Because these definitions apply to 4-digit SIC code industries and OSHA did not conduct its analysis at this level of detail, and because some industry classifications use small business definitions requiring data not readily available from general data sources (such as kilowatt hours of electricity produced), OSHA instead used the definitions of small entities for industry divisions, except in cases where there was no division definition; in such cases, OSHA used the industry (2-digit SIC code) definition of small entity. In future analyses conducted for this rule, OSHA will rely on 3-digit or 4-digit SIC codes for analytical purposes.

### **4. INDUSTRIES THAT MAY BE SUBJECT TO THE DRAFT PROPOSED RULE**

The draft proposed rule would apply to all employers in general industry. In terms of standard industrial classification codes, this means that the standard would apply to certain small entities in SICs 07, agricultural services; 08, forestry; 09, fisheries; 13, oil and gas well drilling, and SICs 20 to 96, with the exception of SIC 3731 (shipbuilding), some operations in SIC 45, railroads, and SIC 44, water transportation (including longshoring and marine terminals). The draft proposed rule would also apply to small public entities in State-plan states; approximately 50% of all state and local employees work in State-plan states and would be covered by the draft proposed rule.

There are 5.5 million small entities, as defined by the Small Business Administration (SBA), that are potentially covered by the draft proposed standard. Of these, 1.45 million small entities would be required by the draft proposed standard to maintain a basic ergonomics program at all times. In any given year, 516,000 small entities would be required to initiate the full ergonomics program envisioned by the standard because at least one employee at the worksite had reported a work-related MSD during the year or because there were known hazards at the establishment.

The draft proposed standard potentially covers 5 million very small entities, i.e., those employing fewer than

20 employees. Of these, 1.27 million very small entities would be required to maintain a basic ergonomics program at all times. In any given year, 271,000 very small entities would be required to initiate a full ergonomics program because at least one of their employees had incurred a reportable MSD during the year or the employer had learned of a known MSD hazard.

## 5. SUMMARY OF OSHA'S OUTREACH

### General Outreach

In order to provide substantial input from the business community, including small businesses, the Agency has held a series of stakeholder meetings to assure that the Agency is aware of the special needs of many different kinds of businesses. OSHA has been holding stakeholder meetings on topics related to ergonomics for over 5 years. In 1998, OSHA began a series of meetings designed to identify issues that would help the Agency formulate the current draft of the proposed ergonomics program rule. The first set of five sessions was held February 4-6 in Washington, D.C. On July 21, OSHA staff met with stakeholders in two sessions in Kansas City, Mo., and on July 23 for two sessions in Atlanta. A final series of three meetings was held September 24 and 25 in Washington, D.C. Representatives present included personnel from the National Federation of Independent Businesses and the Chamber of Commerce.

These efforts built upon the Agency's earlier initiatives to obtain information from small businesses. As previously indicated, in 1992 OSHA published an Advance Notice of Proposed Rulemaking on ergonomics. This notice to the public provided an open forum for small businesses, among others, to comment, and in return the Agency received hundreds of comments. In addition, in 1993 the Agency performed a telephone survey of thousands of businesses nationwide, most of them small, to find out about the current state of ergonomic and general safety programs in businesses, and conditions relating to them. These efforts were followed by a series of stakeholder meetings in 1995, some of which were specifically focused on small businesses.

### The SBREFA Panel

On March 2, 1999, the OSHA SBREFA Panel chair convened the Panel for this rulemaking. The Panel provided small entity representatives with initial drafts of the proposed rule, a summary of the draft rule, a Preliminary Initial Regulatory Flexibility Analysis, a summary of the benefits and costs of the draft rule, a one-page description of the benefits and costs of the draft rule for small firms in the small entity representative's industry, a discussion of the risks associated with musculoskeletal disorders, and a list of issues of interest to panel members. The Panel held teleconferences with the SERs on March 23rd, 24th and 25th, in which almost all of the small entity representatives participated and which allowed for interactive discussion. After these teleconferences, the Panel received the written comments of the small entity representatives; these comments, and the Panel's responses to them, form the principal basis for the Panel's Report.

## 6. SMALL ENTITY REPRESENTATIVES

In consultation with the Office of Advocacy of the Small Business Administration, OSHA invited 20 small entity representatives (SERs) to participate in the panel process. Table 1 shows the names, affiliations, and industries of the SERs who chose to participate in the process, and indicates whether a particular SER submitted written comments.

**Table 1. Small Entity Representatives Participating in the Panel Process**

<b>Name(s)</b>	<b>Affiliation</b>	<b>Industry (SIC Number in parentheses)</b>	<b>Written Comments Provided</b>
Jo Spiceland	Charleston Forge	Forged/Shelving/ Furniture (SIC 3462)	Yes

Peter Meyer	Sequins International	Sequined Fabric (SIC 2395)	No
David Carroll	Woodpro Cabinetry	Furniture Manufacturer (SIC 2434)	No
Richard Murphy, Jr.	Murphy Warehouse Co.	Warehousing (SIC 4225 )	Yes
Mike Walkowiak	Lincoln Plating	Plating (SIC 3471)	No
Gary Neill	Consolidated Telephone	Telecommunications (SIC 4813)	Yes
Andy Ramirez	Braselton Poultry	Poultry Processing (SIC 2015)	No
Deborah Hayden	Tindell's Builder Supply	Lumber & Building Material Dealer (SIC 2439)	Yes
Roger Sustar	Fredon Corporation	Tool and Machining (SIC 3599)	Yes
Gary Fisher	Whiting Distribution Services, Inc.	Public Distribution (SIC 4225)	Yes
David Bolen	New World Tours, Inc.	Bus Charter (SIC 4142)	Yes
Troy Stentz	Somnos Laboratories	Medical Laboratory (SIC 8071)	Yes
Willard Kelly	Bragdon-Kelly-Campbell	Funeral Home (SIC 7261)	Yes
Charlie A. Martin	Bommer Industries	Manufacturer of Hinges/Hardware (SIC 3429)	Yes
Connie M. Verhagen	Dr. Connie M. Verhagen	Pediatric Dentist (SIC 8021)	Yes
Victor Tucci	Three Rivers Health & Safety, Inc.	OSHA Consultant (SIC 8742)	Yes
Clifford Wilcox	Camellia City Services	Landscaping Maintenance (SIC 0781)	Yes
Jim M. Wordsworth	J.R.'s Goodtimes	Restaurant & Caterer (SIC 5812)	No
David E. Mittlefehldt	Prior Aviation Service, Inc.	Air Transportation (SIC 45)	Yes
Janet Kerley	Lead-Rite, Inc.	Safety and Health Consultant (SIC 87)	Yes

## 7. SUMMARY OF SER INPUT

This summary reflects both the oral comments expressed by the SERs in three teleconferences and the written views submitted by them to the Panel. The complete text of the written comments has been provided as Appendix A to this document, and will be submitted to the docket as part of this Report.

## **General Questions/Comments**

A number of SERs who commented on the question of the standard's clarity expressed the opinion that the standard, on the whole, was fairly clear. However, certain terms were singled out as creating difficulties. Some SERs had particular difficulty with the following concepts: "manual handling," the criteria for a recordable injury or illness, "similar jobs," and "feasibility." For example, one SER asked whether all jobs in his cabinet works would be considered similar because all of his jobs occasionally involved moving furniture. Another SER asked whether spending \$300,000 to automate a hand assembly line would be considered feasible, or whether a \$20,000 expenditure reducing exposure in the same job would be considered sufficient. Many SERs believed that the concept of work-relatedness was unclear and that it was a difficult decision for an employer to make. Many felt this decision should be made by a medical professional.

Some SERs questioned the need for the standard, based in part on the decline in the rates and numbers of work-related musculoskeletal disorders reported to the BLS in recent years. Others argued that the scientific basis for the standard has not yet been fully developed. Several urged that OSHA wait for publication of another NAS study to determine the adequacy of the scientific basis for the regulation of work-related MSDs. Mr. Wilcox questioned OSHA's data on the incidence of the MSD problem, arguing that repetitive strain injuries represent less than 4 percent of all work-related injuries and illnesses.

Some SERs felt that it was essential that employees, as well as employers, be held accountable and responsible for their role in minimizing MSDs.

Mr. Bolen expressed a concern that analysis at the two-digit, and even the four-digit industry level, could be misleading and fail to recognize major distinctions among businesses.

Mr. Martin felt that there should have been a panel for manufacturing firms only.

## **Costs and Impacts**

### Total Costs

Most of the SERs felt that the costs of compliance projected by OSHA were significantly underestimated. Ms. Kerley asserted that "governmental estimates are always 1/10 to 1/4 of the actual implementation costs." Ms. Kerley provided a detailed direct comparison of OSHA's draft estimates of the proposal's cost with her own. Ms. Kerley also questioned the concept of combining data from different years in the cost estimates (e.g., MSD rates from 1996 and percentage of firms with programs from 1992). She also questioned what was included in the fringe benefit estimate. Mr. Martin raised the issue that no one is average, and illustrated his point by saying you "can drown in a lake that is an average of 2 inches deep," and, therefore, the use of average costs for an industry can be misleading when applied to an individual firm.

### Program Costs (General)

Some SERs felt that OSHA had neglected to recognize that there would be costs even for firms that were not in the scope of the standard at all. For example, Dr. Verhagen maintained that even dental practitioners and other employers who were not covered fully by the standard would incur substantial familiarization costs. She estimated costs of over \$5,000 simply to understand the standard and be ready should an MSD occur, as compared to the one hour per establishment OSHA estimated for the familiarization process. Several SERs believed that OSHA's estimates for the cost of providing for management leadership and employee involvement were too low. Assuming that program-related costs would be similar to the program costs of OSHA's bloodborne pathogens standard, Dr. Verhagen drew on the American Dental Association survey of the costs of the bloodborne pathogens standard to provide a detailed estimate indicating that the program-related costs would be almost ten times more expensive than the \$73 for a small firm estimated by OSHA. Mr. Mittlefehldt estimated that it would take 1000 hours to identify "redundancy" issues. Mr. Stentz estimated that adding an ergonomics program to a general health and safety program would take 10 to 20 manhours, at a cost of \$150-\$300. Mr. Murphy felt that developing a program for his 170 employee warehouse firm would require 4 to 5 hours per day of a manager's time for 5 months. Once established, he felt the program would require 25% of a manager's time thereafter. Some SERs felt that outside consultants

would be necessary to set up a program or determine even if the program requirements applied to them.

### Training

Some SERs felt that training costs were underestimated. Mr. Murphy felt that in the first year he would need a total of 1013 hours of employee time plus 755 hours of management time for "safety and health reminder times." Ms. Kerley believed that the training costs were generally underestimated, particularly for supervisors. One SER expressed concern about the costs of providing training and information "in the languages employees use," which could mean languages other than English.

### Job Hazard Analysis Costs

Ms. Kerley believed that OSHA's estimate of \$1000 for an ergonomic consultant was low. Her sample of ergonomic consultants indicated a range of \$2000 for a simple walk-through to \$25,000 to do a hazard control analysis. She quotes an hourly rate of \$100-\$175.

### Job Control Costs

Some SERs differed with OSHA's estimate of average costs of \$800 per affected employee for job control costs. Mr. Mittlefehldt estimated that controlling costs in his business would run \$250,000 annually, or \$20,161 per employee, with a 70% standard deviation. Ms. Kerley provided examples of job control fixes which ranged from \$600-\$150,000, although she noted that her sample was limited to the electronics and semiconductor industry. She also noted that the \$150,000 example she provided "was probably justified by the increase in production" that resulted from the job fix.

### Medical Management/Medical Removal Protection (MRP)

Some SERs felt that these were the most costly provisions of the draft proposed standard. Many SERs were concerned with the high costs of medical removal protection and provided sample calculations of the costs of supporting an employee in their facility for 6 months. Ms. Kerley noted that employers in relatively rural locations will have greater difficulty in providing for doctors with sufficient knowledge of MSDs. She also argued that employees would effectively receive an after-tax pay raise as a result of the draft rule's medical removal protection requirement. Some SERs were concerned that the costs of medical removal protection could force very small firms out of business.

### Use of Outside Consultants

Many SERs were concerned that small firms would need to make use of expensive outside consultants in all phases of the program, from program set-up to hazard analysis to hazard control. In addition to the costs of such outside consultants, some SERs were concerned about whether an adequate number of consultants would be available to meet the demand.

### Ability to Pass on Costs/Economic Feasibility

Almost all SERs indicated they would not be able to pass on the costs of compliance, although at least two indicated this would be possible. Ms. Kerley brought up the issue that the fact that benefits exceeded costs over the long run was not adequate for small businesses, which have difficulty getting credit. Several SERs endorsed the idea of an ergonomic tax credit for small businesses so that they would be better able to absorb the cost. Ms. Kerley estimated that 20% of the suppliers for a particular company would not have the economic resources to comply with the draft proposed standard. She also suggested that while there may be an economic payoff associated with an investment in controls, this payoff would happen too slowly for some small firms to remain in business.

Mr. Meyer suggested in oral comments that some firms in his industry, textiles, would move operations overseas in response to what he perceived of as the burden imposed by the draft proposed standard. Others cited foreign competition as a reason costs would be difficult to pass on.

One SER in the warehousing industry pointed out that international shipments frequently come in forms

that are difficult to handle manually. Neither the warehouse owner nor U.S. law has any control over these forms of shipment.

### Effectiveness of Programs

Those SERs who had previously adopted ergonomics programs or had studied other programs in industry generally acknowledged that they had been successful in reducing MSDs. Mr. Meyer in oral comments indicated that despite his concerns about the proposal, he felt the ergonomics program at his facility had been a success. Ms. Kerley indicated that Intel's program began to show benefits after an initial spike in reported MSDs. She also indicated that a program at Silmax, while expensive, "did eliminate MSDs and production capacity was doubled without an increase in headcount."

Mr. Mittlefehldt estimated that the draft standard would increase the number of MSDs by as much as 20% "due to the incentive to report and inability to dispute or confirm cause and effect." Mr. Martin was concerned that ergonomics programs "could possibly deflect time and attention away from more serious and life threatening type injuries."

### Selective Hiring

Several SERs were concerned that the rule would lead to discrimination against workers perceived to be more likely to have or report an MSD. Discrimination against older workers, persons previously on welfare, and persons who had had MSDs in the past were mentioned as possible types of discrimination the draft proposed standard might encourage.

### Separate Analysis for Entities with Fewer than 10 Employees

Several SERs felt that it would be useful for OSHA to provide a separate data breakout on entities with fewer than 10 employees in the Agency's preliminary economic analysis.

## **Comments on the Standard**

### Scope

Some SERs believed that the standard should cover all industries. An Appendix to Ms. Kerley's comments suggested that the omission of construction and agriculture "is probably arbitrary and capricious," given that "it is well-documented that repetitive motion trauma is extremely prevalent in construction and agriculture."

### Definitions

Several SERs felt that the meaning of the term "feasible" was unclear. Several of the SERs expressed reservations about the definition of "similar" jobs. Ms. Spiceland and Mr. Mittlefehldt felt the definition of "heavy" was unclear. The definition of a WMSD was unclear to many, including those portions of the definition that have been used in OSHA's recordkeeping rule for many years.

### Hazard Identification and Training

Some SERs questioned the draft proposed requirement stating that employees must be informed about the signs and symptoms and ways of recognizing MSDs because they feared that such awareness would result in an increase in the reporting of MSDs.

### Standard/Full Program "Trigger"

Many SERs felt that a trigger of one work-related MSD (WMSD) for activating the full program was too sensitive. Some were concerned that one WMSD could trigger the program for a very large number of workers. Others were concerned that WMSDs were caused by factors outside the workplace, while some felt that a single WMSD was a "random" event and should therefore not trigger the program. Several SERs pointed out that even the best programs cannot hope to eliminate all MSDs and questioned whether a

program should be triggered by the kinds of MSDs that are work-related in some sense but for which the workplace source of the hazard cannot be identified with certainty. Some SERs indicated that their concern about this issue was heightened by the presence of the Medical Removal Protection requirements (MRP is discussed further elsewhere), in that workers may be encouraged to report back pain and other MSDs whether or not they truly have an MSD, whether or not the MSD was caused by work, and even if the injury was attributable to a work activity. Dr. Tucci stated: "Backaches are like headaches, if you have it you know it, but there is not conclusive [underlined in written comment] physiological method of proof that the person is or is not experiencing pain." He also believed the draft proposed standard created a presumption that all MSDs are work-related. Some other SERs believed it would require substantial effort on the part of the employer to determine whether or not the disorder was work-related, although others disagreed. Many SERs were concerned that the risk of incurring an MSD is determined by such factors as the age, condition, after-work activities, and physiology of the worker. These SERs felt that such factors reduce the significance of the occurrence of a single MSD in a workplace. Suggestions for alternative triggers are discussed in the Alternatives section of this Report, below.

Some SERs felt that the "known hazard" trigger would discourage proactive programs or the calling in of outside expertise unless an MSD had already occurred.

### Similar Jobs

Dr. Verhagen emphasized that the purpose of fixing "similar" jobs should be the job-relatedness of the WMSD. She argued that where a particular job has no history of WMSDs, it should not be necessary to fix similar jobs. Mr. Wilcox pointed out that his firm of 26 full time employees had 21 employees with identical jobs.

### Hazard Analysis

One SER expressed a concern about how to identify similar jobs, or even to isolate the hazard when a shop uses extensive job rotation.

### Hazard Control

Some SERs were concerned with how they could determine if they had fixed a job adequately so that they would be in compliance with the draft proposed standard. Others were uncertain as to the meaning of the term feasible. One SER was particularly concerned that administrative controls included "adjustment of work pace" and that this might mean the employer would have to slow down the pace of work whenever there was an MSD.

### Clarity of Medical Removal Protection (MRP)

Some SERs were concerned that the draft medical removal protection provision could be read to require that employees receive more take-home pay than they would receive if they were at work.

### Medical Removal Protection (MRP)

Most SERs expressed reservations about the draft's proposed MRP provision. Some SERs were unclear about who (the employer or the employee) would provide the physician to make the determination that removal was warranted. Many SERs were most concerned about the possibility that they would need to compensate an employee for an injury or illness that would not be compensable under state workers' compensation law. Even where workers' compensation would apply, several SERs expressed concerns about increased workers' compensation claims, including fraudulent claims, due to the provision for full income protection in cases of a reported MSD. Some commenters believe that this provision would effectively provide for a pay increase if the worker is out on disability. Some SERs indicated that their companies did not have alternative duty (restricted work) jobs. Ms. Spiceland was uncertain how the MRP provision would affect fringe benefits. Several SERs expressed concerns that this provision would provide a disincentive for employees to return to work after an injury. (Concerns about legal and administrative conflicts with workers' compensation systems are dealt with below.)

Many SERs were also concerned that MRP, or the combination of MRP and employee information on MSDs, would cause an increase in worker compensation costs and in reported MSDs.

### Program Evaluation

Ms. Kerley questioned how programs were to be evaluated, and felt that any evaluation of the program based solely on the number and rate of MSDs would be problematic, particularly since some MSDs cannot be readily fixed even with the best programs.

### Recordkeeping

Mr. Martin objected to the recordkeeping requirements in the draft proposed standard; he believed that they were redundant with requirements in other standards and with "good business practice." One SER, with less than 10 employees, who is currently exempt from the OSHA's recordkeeping rule, would begin to keep records if the draft proposed ergonomics program rule were promulgated.

### Implementation Deadlines

Ms. Kerley indicated that most job hazard analyses take from 16 months to 3 years to complete, longer than the year provided for in the draft proposed standard.

### Enforcement

Some SERs expressed concern about OSHA enforcement, and stated that these concerns were heightened by the vagueness of some of the language in the draft standard. For example, several SERs expressed concern as to how the term feasibility would be interpreted. Others suggested that one of the major problems with the MSD trigger is that employers and OSHA inspectors would differ over whether hazards likely to cause an MSD were present, and what might constitute a routine part of the job.

### Regulatory/Statutory Overlap/Conflict

Several of the SERs raised concerns regarding the interaction between state workers' compensation systems, the Americans with Disabilities Act (ADA), Equal Employment Opportunity Commission (EEOC) rules (see comments under selective hiring), and the Medical Removal Protection requirements of the draft standard. Many SERs were concerned that the medical removal protection provisions would override state worker compensation rules. Ms. Kerley also provided a detailed description of the points of perceived conflict between the workers' compensation system and MRP. Mr. Sustar suggested that the MRP provision would encourage discrimination against older and handicapped workers. Ms. Kerley argued that this provision would effectively conflict with the goals of welfare-to-work programs. Some SERs were concerned about possible overlaps between the draft proposed ergonomics rule and the draft safety and health programs rule, and questioned whether both rules are necessary.

### Regulatory Alternatives

Most SERs argued that non-regulatory avenues, such as the dissemination of information on MSDs, should be pursued. Some SERs felt that a combination of outreach and enforcement under the General Duty Clause should be adequate for small businesses. Some SERs indicated that these should be pursued as alternatives to rulemaking.

SERs suggested a wide variety of alternatives to specific provisions of the draft proposed standard. Several SERs recommended raising the trigger for the full ergonomic program to more than one WMSD. Ms. Kerley suggested using lost workday MSDs as the trigger. Mr. Sustar suggested a trigger of 3 employees with WMSDs, or 5-10% of the workforce with WMSDs, or perhaps several incidents over a three year period. Mr. Martin suggested using a rate reflecting employee work hours, although he noted that this approach would trigger the standard for small employers much sooner than for many larger employers. Dr. Verhagen suggested that the standard be triggered only by a medical diagnosis of a WMSD. She also suggested that the standard include an exemption for establishments that had not had WMSDs for three years. One SER

suggested that OSHA look to the way insurers do experience rating for workers' compensation, i.e., their approach to the weighting of injuries by size of firm and their use of three years of data.

Mr. Neill submitted written comments suggesting that the whole notion of an MSD trigger was "very reactionary" and advocated a proactive approach to prevent injuries in the first place: "We all know that cumulative trauma disorders are extremely costly. It seems to me that a proactive approach would be far more beneficial, both from a financial and human suffering viewpoint."

Dr. Tucci suggested that it would be helpful for the physician to have the employee job description as well as description of all non-work related activities to determine if the injury is truly work related. He noted that, "Without all the facts, the physician may not be able to determine accurately if the MSD is or is not work-related."

Ms. Kerley suggested that the ergonomics standard adopt age-related nuances, similar to those in OSHA's Hearing Conservation standard.

Many SERs suggested that the medical removal protection provision should be dropped. Some SERs noted that they followed a policy similar to the requirements of the medical removal protection provision for restricted work; however, no SER had a policy of paying anything above and beyond workers' compensation for time away from work.

Many SERs stated that if an ergonomics standard were promulgated, extensive outreach would be necessary, and some recommended that OSHA postpone any regulation until adequate consultation services were available from OSHA.

As indicated previously, several SERs endorsed the idea that businesses be provided tax incentives to purchase "ergonomically correct" equipment. This was suggested both as an independent initiative and as a way of making the proposed standard more economically feasible for employers.

## **8. PANEL DISCUSSION AND RECOMMENDATIONS**

### **Costs and Impacts**

#### **Underestimation of Costs and Burdens**

Many SERs felt that OSHA's preliminary cost estimates had underestimated costs. Based on these SERs' concerns and Panel discussions, the Panel agrees that OSHA's preliminary cost estimates may have underestimated the costs, perhaps materially. The Panel recommends that OSHA review its cost estimates in light of these comments, with specific attention to those comments that offered alternative cost and hour estimates or explanations of why the commenters believed the costs to be underestimated and to those areas of the program highlighted by the SERs and the Panel as major cost issues (training, consulting costs, medical removal protection, job hazard analysis, job control). This review, with a presentation of the estimates provided by the SERs, should be included as part of a revised IRFA.

The Panel also recognizes that increased costs of certain kinds, such as those for consulting, may decrease other kinds of costs, such as those for training. If OSHA concludes that the costs were not significantly underestimated, the Agency should explain the rule more clearly to help assure that small businesses will not misunderstand the intended requirements and why OSHA believes that the SERs' estimates were excessively high. The Panel also recommends that OSHA continue to present cost data in a manner that not only reflects average costs but reflects the distribution of costs between those firms with and without an MSD. The Panel notes that OSHA presented costs in terms of the time-stream of direct costs, a format that small firms most easily comprehend, and recommends that the Agency continue to use this form of presentation in its discussion of the costs of this rule.

#### **Major Assumptions Underlying Benefit and Cost Estimates**

The Panel recognizes that OSHA provided the Panel with a clear and well prepared presentation of the

major assumptions underlying its cost analysis. Accordingly, the Panel recommends that a similar presentation of the assumptions underlying benefits estimates be included. The Panel also recommends that OSHA discuss the sources and bases of these assumptions, significant alternative assumptions, and the reasons OSHA selected the proposed assumptions.

### Similar Jobs

Some SERs suggested that OSHA may have underestimated the number of employees in similar jobs. Some pointed to large numbers of workers with identical jobs in their own facilities, and some stated that everyone does every job in a small facility. The Panel recommends that OSHA reexamine its estimates of the average number of persons in similar jobs (see below for specific recommendation to modify the term "similar job"), and how this estimate may impact overall costs.

### Program Costs

Some SERs felt that there may be substantial costs for firms to understand the rule and to determine whether they are covered by the rule, even for firms not required to have a basic program and who have not had an MSD. The Panel recommends that OSHA examine its cost estimates to be sure that it has adequately accounted for the burden on firms who do not have an MSD and are not required to have a basic program. This examination should include an examination of the costs of determining whether an MSD is work-related.

### Need for Outside Consulting Services

Many SERs expressed doubt over their capability to make an either the initial determination about whether they need an ergonomics program or to implement ergonomics program itself. Many SERs felt that they would need the assistance of consultants to set up an ergonomics program and to assist them in their hazard identification and control activities. The Panel recommends that OSHA consider whether the Agency's analysis may have underestimated the need for help from outside consultants and that OSHA examine the necessity for, and cost and availability of, the services of ergonomic consultants.

### Cost Pass-Through

Almost all of the SERs stated that they would not be able to pass on the costs of an ergonomics program to their customers. The ability to pass through costs may be dependent on the level of domestic and foreign competition. The Panel recommends that OSHA consider the extent to which small firms can pass along any price increases to consumers or might experience feasibility problems if such costs could not be passed along.

### Incentives for Selective Hiring

The Panel is concerned that many SERs felt that the proposed rule would significantly increase the incentives not to hire (or to dismiss) individuals that were members of groups that they perceive to be more likely to incur MSDs, and that some employers would be tempted to set up new kinds of screening tests in order to evaluate the likelihood that future employees would incur an MSD. The Panel is aware that selective hiring incentives are already present to some extent in the workers' compensation and health insurance systems. The Panel recognizes that selective hiring practices are often illegal. The Panel recommends that OSHA assess the SERs' statements as part of its analysis, consider how to mitigate any potential that may exist for expanding such selective hiring incentives or creating new ones, and solicit comment on these issues.

### Workers' Compensation Costs

Many SERs were concerned that the medical removal provisions or the information provisions of the draft rule might encourage more reporting of MSDs, leading to an increase in workers' compensation costs. OSHA recognizes that ergonomics programs frequently result in an increase in the number of injuries reported, but OSHA notes that empirical data show that ergonomics programs generally reduce workers'

compensation costs over time. The Panel recommends that OSHA assess these data as part of its analysis. The Panel further recommends that OSHA provide additional data to support its arguments about the costs and cost-savings implications of these programs and specifically address any potential effects of medical removal protection in encouraging workers to remain off work.

### **Number of Small Entities**

A few SERs were concerned that OSHA's initial analysis was conducted at the two-digit (major industry group) level, instead of the three or four-digit level. The Panel notes that analysis at this level sometimes involves aggregating data from very dissimilar industries (e.g., doctors' offices and hospitals). The Panel recommends that OSHA conduct the analysis at level of detail that does not mask the relevant economic differences among industries through aggregation.

### **Description of Proposed Requirements**

#### Use of Outside Consultants

Many SERs questioned OSHA's estimate that consultants would not be necessary for any element of the program except in 10% of those cases involving job fixes. The Panel recommends that OSHA review whether small businesses would need consultants for other elements of the program, whether they may be necessary in a greater percentage of cases, and to what degree these factors would alter cost estimates.

#### Outreach

Many SERs expressed doubt over their capability to make either the initial determination about whether they need an ergonomics program or to implement the ergonomics program itself in a way that would satisfy OSHA compliance personnel. The Panel agrees with OSHA's plan to conduct an outreach program that would provide small entities with the materials and assistance they may need to make initial determinations and to implement an ergonomics program.

#### Use of Checklists

Some SERs expressed an interest in having checklists to help them in determining if the work activities of a job pose hazards that are likely to cause or contribute to an MSD, and to aid them in hazard identification. The Panel recommends that OSHA evaluate the usefulness of checklists for these purposes. In the event OSHA develops checklists for its own enforcement personnel, it should make these checklists available to the public.

#### Definition of the Work-Relatedness of MSDs

Many SERs had difficulty understanding OSHA's criteria for determining the work-relatedness of MSDs. Many SERs interpreted OSHA's criteria for determining the work-relatedness of MSDs in such a way that, in practice, the two criteria in addition to a recordable MSD would be unworkable or ignored. The Panel recommends that OSHA should either consider alternative approaches to this issue or clarify these criteria.

The Panel also recognizes that employers believed they would incur significant burdens in making the determination on their own. Some SERs felt that the work-relatedness decision should be made by a physician rather than an employer. The Panel recommends that OSHA clarify that employers may, if they wish, rely on a physician's opinion in making a work-relatedness determination, and that OSHA would bear the burden of proof if it disagreed with such an opinion.

#### Known Hazard Provision

Some SERs found the known hazard provision unclear. Some were also unclear about the difference between a "known hazard" in this rule and the concept of a "recognized hazard" in the General Duty Clause. Others were concerned that the use of the known hazard concept would discourage employers from establishing new, proactive programs.

The Panel recommends that OSHA clarify and consider alternatives to this trigger (these are discussed in the Alternatives Section at the end of this report), and that OSHA assure that any provision it adopts would not create disincentives to the proactive identification of ergonomic hazards.

### Clarity of Definitions and Compliance/ Enforcement Concerns

Some SERs expressed concerns about how certain terms and provisions of the draft rule would be interpreted and enforced by OSHA compliance personnel. Many SERs found it difficult to apply the concepts of feasibility, similar jobs and manual handling, as these are defined in the draft rule. The Panel recommends that OSHA seek ways to clarify, explain, and provide examples of these terms. The Panel recommends that OSHA clarify that the draft proposed rule only requires the employer to control hazards to the extent feasible for that firm, using the normal OSH Act definition of feasibility (i.e., "Is it capable of being done"), discuss in the preamble the factors that go into that determination, and seek ways to include such explanatory information in the preamble, outreach, and compliance assistance materials.

Specifically, the Panel recommends that OSHA clarify the idea of similar jobs and use a more precise term, such as "similar work activities," in light of SER comments that all or a portion of employees sometimes engage in all or a portion of the work activities in the establishment. The Panel also recommends that OSHA provide in the regulatory document, examples of which similar work activities would or would not be covered by the standard.

The Panel also recommends that definitions of personal protective equipment and engineering controls be added to the proposed standard, with ergonomic examples that help to explain how they differ.

### Hazard Control

Some SERs were uncertain how to determine when a job is adequately controlled and were concerned that OSHA compliance personnel might have different interpretations of the meaning of adequate controls than employers. The Panel recommends that OSHA discuss the issue of adequate control and provide examples. The Panel also recommends that OSHA clarify the meaning of the proposed rule so that employers will have a better idea of when they have done enough to comply with the standard. Examples should be added to the preamble to further clarify this point.

### Program Evaluation

The Panel also recommends that the proposed standard be modified to clarify the requirement for program evaluations. Such modifications should reflect the flexibility of employers to use non-quantitative measures, quantitative measures, or a combination of these to evaluate their ergonomics programs.

### **Duplicative and Overlapping Rules**

#### State Workers' Compensation

Many SERs and the Panel were concerned about perceived overlaps between State workers' compensation laws and the draft standard's medical removal protection requirements. The Panel recognizes that OSHA has used medical removal protection provisions in the past, but has never had a medical removal protection provision that would cover so many cases. The Panel recommends that, if MRP is included in the proposed rule, OSHA explain in the preamble how the proposed provision interacts with state workers' compensation laws and why OSHA believes the rule's MRP provision is not in conflict with Section 4(b)(4) of the OSH Act, and solicit comment on this issue.

#### Equal Employment Opportunity (EEO) regulation and guidance

Some SERs suggested that employers' increased concern about MSDs could create additional incentives for employers to discriminate against individuals who may be members of protected classes of employees based on the perceived likelihood that such workers would have more MSDs than other workers. The Panel understands that OSHA designed the draft proposed rule to avoid conflicts with EEO laws, such as the

Americans with Disability Act (ADA) and Age Discrimination in Employment Act (ADEA), and recommends that OSHA draft the proposed rule to achieve these objectives.

Specifically, some SERs suggested that employees trying to avoid MSDs would violate the ADA. The Panel also recommends that OSHA address how the ergonomics program accommodates the requirements of the ADA. The Panel also recommends that OSHA seek to minimize any unintended consequences of the rule that might undermine the protections afforded under the ADA, as well as the ADEA.

### National Labor Relations Act (NLRA)

Some SERs were concerned that the employee participation provisions of the draft rule could lead to conflicts with the NLRA. The Panel understands that OSHA designed the draft proposed rule to avoid conflicts with the NLRA. The Panel recommends that OSHA draft the proposed rule to achieve these objectives and discuss and give examples of employee participation mechanisms that would allow employers to be in full compliance with both the NLRA and the proposed rule.

### Safety and Health Program Rule

Some SERs expressed concern that they would need to set up two programs if OSHA were to issue a safety and health program rule that was separate from an ergonomics program rule. The Panel recommends that OSHA ensure that the two rules are developed in a way that allows an employer's ergonomics program to be an integral part of that employer's general safety and health program and to avoid duplicative requirements or recordkeeping (for example, by making clear that an ergonomics program can be part of an effective safety and health program). The Panel also recommends that the economic analyses supporting the two rules be compatible and not double count either costs or benefits. The Panel further recommends that OSHA ensure consistency between relevant definitions in their upcoming revision of the recordkeeping rule and the proposed ergonomics standard.

## **Regulatory Alternatives**

### Non-regulatory guidance

Many SERs suggested that non-regulatory guidance would be preferable to a rule. The Panel recommends that OSHA further explain its non-regulatory guidance efforts to date, the basis for its belief that a significant risk remains, and why it believes a proposed rule is now appropriate to reduce that risk. The Panel recommends that OSHA solicit comments on the need for a rule and on the effectiveness of non-regulatory approaches.

### Issue Only a Safety and Health Program Rule

The Panel recommends that OSHA discuss whether a safety and health program rule would adequately address MSDs, thereby eliminating the need for a separate ergonomics rule.

### Delay until NAS study is complete

Some SERs recommended that OSHA delay the ergonomics rule until the completion of the NAS study that is now underway. The Panel recommends that OSHA explain why it does not wish to delay this proposed regulatory action until that time, and consider any available results of the NAS study that are in the record of the final rule.

### Phased Implementation

The Panel recommends that OSHA consider phased implementation, allowing additional time for small employers and/or employers in particular industries where feasibility may be a concern.

### Alternative triggers

The Panel agrees that the purpose of including a trigger in the rule is to ensure that only those whose jobs

pose real ergonomic hazards are required to implement the full program. The Panel also agrees that the trigger must clearly identify which employees and/or operations are covered by the rule and which are not.

Many SERs questioned the usefulness of OSHA's reliance on one work-related MSD as a trigger for implementation of a full ergonomics program. The Panel notes that many SERs did not find the second and third tests for work-relatedness in the draft standard workable, perhaps because they found these tests subjective and likely to be interpreted differently by employers and OSHA compliance personnel. In addition, the Panel recognizes that the California ergonomics standard, the only State with an ergonomics standard, has a two-incident trigger. The Panel recommends that, in addition to OSHA's draft proposal of a trigger of one work-related MSD, where regular work activities expose the employee to hazards likely to cause or contribute to that MSD, OSHA analyze and consider a variety of alternative triggers, paying special attention to:

- A trigger using multiple work-related MSDs over a time frame that might exceed one year; and
- Staged implementation of program elements based on multiple work-related MSDs.

In addition, the Panel recommends that OSHA look at other types of triggers, including lost workday MSDs, MSD rates, numbers of MSDs or MSD rates for different sizes of firms and different periods of time, as well as the use of a checklist to determine the presence of a hazard.

#### Alternatives to known hazards

Some SERs were concerned that including the concept of known hazards in the trigger used to determine whether an employer needs a program would discourage employers from launching proactive programs, or from bringing in expert consultants. The Panel recommends that OSHA consider this issue and ensure that any provision it adopts would avoid disincentives to identify hazards. The Panel recommends that OSHA also consider not including this provision in the proposed rule.

#### Scope of the rule

The Panel recognizes that many businesses and work operations are not intended to be covered by the proposed rule. Panel recommends that the proposed rule clearly indicate which manual handling and other operations are included in the proposed rule and which are excluded from it.

The Panel also recommends that OSHA continue to analyze and solicit comments on the alternatives of limiting the proposed standard to manufacturing only, and to manufacturing and manual handling only.

#### Alternatives to Medical Removal Protection

The Panel recognizes that the draft rules' MRP provisions are extremely controversial. The Panel agrees that these MRP provisions account for a substantial percentage of the total costs of the standard (OSHA's preliminary estimate is that these MRP provisions may have costs of \$900 million), and that many SERs felt that under some circumstances these MRP provisions may threaten the viability of small firms.

OSHA notes that MRP has been included in many health standards, based on findings that MRP was necessary in order to assure employee participation in medical surveillance/ medical management programs and that the draft standard is more dependent than most health standards on adequate employee participation. It is generally agreed that early detection of MSDs is critical to the success of an ergonomics program, and the program required by the draft standard would trigger action upon a finding that a work-related MSD has occurred. OSHA is concerned about the possibility of seriously reduced employee participation in the absence of MRP.

However, an ergonomics program standard with an MRP provision will affect substantially more workplaces, trigger more MRP coverage, and have more overlap with workers' compensation than MRP provisions in OSHA's other health standards. The Panel notes that many MSDs are currently being reported, that more serious MSDs are more likely to be reported, and that SERs with existing ergonomics programs stated that the institution of a program in and of itself led to increased reporting of MSDs. The Panel also recognizes

that MRP may increase the incentive to report non-work-related MSDs as work related and may increase time away from work.

Many SERs also expressed concern that employees would be able to take up to six months away from work simply because they stated they had MSDs. The Panel recognizes that this scenario is not what the draft standard would require. MRP would only come into effect once the employer has determined the MSD is work-related and that medical removal is necessary and only for so long as necessary. The Panel understands that in most cases lost workdays resulting from MSDs only last several days.

Given the serious controversy concerning this provision of the rule, the Panel recommends that OSHA pay particular attention to the following issues related to MRP:

- Determine whether the evidence indicates that MRP or other provisions are necessary to achieve the goal of prompt and complete reporting of MSDs. The Panel realizes that, as with any other decision, OSHA's final determination of whether MRP is necessary must be based on substantial evidence in the standard's record considered as a whole. The Panel also recommends that OSHA solicit comment on the alternative of excluding MRP from the rule ;
- If MRP or another provision is necessary, examine whether the purposes of MRP could be met with a more limited form of MRP, such as a shorter time limit for MRP coverage, a smaller percentage of income replacement, or recognition of a feasibility limitation on MRP at the firm level, such as that used in OSHA's Methylene Chloride standard;
- Assess whether alternatives other than MRP would be as effective in achieving the goals of prompt and complete reporting, such as alternatives that may not involve payments to employees; and
- Examine whether MRP should be phased in over a period of time.

Some SERs also expressed concern that, as currently drafted, OSHA's draft language could be interpreted as providing injured employees on MRP with more take-home pay than they would have had before the injury. The Panel recommends that, if a form of MRP is included in the proposed rule, OSHA make it clear that MRP will not result in higher take-home income for removed employees than they would otherwise have received.