

Dispute Resolution in the Administrative Process: Evaluation of the Occupational Safety and Health Review Commission Settlement Part Program

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Table of Contents

Executive Summary	1
Introduction	9
Design of Evaluation	10
Data Collection	13
Section A. Internal Stakeholders’ Assessments of Mandatory Settlement Part.	16
Introduction	16
Protocol /Interview Design.....	17
Sampling and Responses.....	18
Results.....	18
Topic 1: The Value of Settlement Part (SP) Compared to Conventional Proceedings.....	19
Topic 2: Reasons that Some Cases take Much Longer than Others	20
Topic 3: Proposals for Reducing Time on the Docket.....	21
Topic 4: Effective Techniques Used in the Facilitation Settlement.....	22
Topic 5: Appropriate Role of Discovery in Settlement Part.....	22
Topic 6: The Usefulness of Requiring Parties to Bring Officials Who Have Authority to Settle.....	23
Topic 7: Dispute Resolution and Mediation Training Needs.....	23
Topic 8: Ways in Which Settlement Part Program, Design, Management, or Administration Can Be Improved.....	24
Topic 9: Could Current Regulations of Settlement Part Benefit from Revision	25
Topic 10: What Information Might Be Useful to Communicate to Congress, Other Agencies, or the Public Regarding the Work of OSHRC and Settlement Part.....	26
Conclusions and Recommendations.....	26
Appendix A-1	27
Appendix A-2	29

Section B. Efficiency and Effectiveness in Case Management Through Analysis of Archival Case Records	31
Introduction	31
Efficiency of Settlement Part	33
Figure B-1. Comparison of Cycle Times for All Cases and Programs: 2000 -2011	36
Figure B-2. Trend in New Cases Docketed: 2000 -2011	37
Figure B-3. Changes in Distribution of Case Types 2000-2010.....	38
Figure B-4. Average Penalties Per Case: 2000-2010.....	39
Figure B-5. Citations Per OSHRC Case Over Time: 2000-2010.....	40
Figure B-6. Items Per OSHRC Case Over Time: 2000-2010.....	41
Table B-1 Regression Analysis on Cycle Time	43
Table B-2 Dependent Variable Failure to Settle or Litigation	49
Table B-3 Probabilities of Failure to Settle	52
Predicting Future Compliance	53
Table B-4 Probit Predicting Future Compliance	55
Table B-5 Probabilities of Future OSHA Citations	56
Table B-6 Effect of Penalty Amounts on the Probability of Subsequent OSHA Citations	57
Table B-7 Additional Probit Results predicting Future Compliance	58
Appendix B-1: Technical Appendix- OLS Regression Analysis	60
Appendix B-2: Technical Appendix- Probit Analysis: Factors Predicting Cases that will Fail to Settle in Settlement Part	65
Appendix B-3: Technical Appendix- Probit Predicting the Likelihood of Subsequent OSHA Violations for MSP and Conventional Cases	66
Section C. Participants’ Perceptions of OSHRC Programs: Summary of Survey Responses with Focus on Procedural and Distributive Justice	68
Introduction	68
Table C-i Response Rate for Mandatory Settlement Part	73
Table C-ii Response Rate for Convention Proceedings	73

Table C-iii: MSP Survey-Familiarity of Respondents with Different OSHRC Programs by Role	75
Table C-iv: Conventional Survey-Familiarity of Respondents with Different OSHRC Programs by Role	76
Table C-v. MSP Survey-Nature of Most Recent Case	77
Table C-vi. Conventional Survey- Nature of Most Recent Case	77
Survey Response Summaries	78
Tables C-1 to C-37. Cross-Tabulations	87
Appendix C	

Executive Summary

In 2010, The Occupational Safety and Health Review Commission (OSHRC or the agency) and researchers from Indiana University began working together to evaluate and recommend improvements, if any, to OSHRC's "Mandatory Settlement Part" Program (MSP). OSHRC adjudicates legal disputes that arise from workplace safety and health inspections conducted by the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA). According to OSHRC's strategic plan for years 2010–2015, the agency aims to be objective, fair, prompt, professional and respected in resolving contests arising from OSHA-issued citations.

The procedures for Mandatory Settlement Part apply to notices of contest by employers in which the aggregate amount of penalties sought by the Secretary is \$100,000 or more. 29 C.F.R. § 2200.120 (b). Researchers in this investigation sought objectively to evaluate the effectiveness of MSP. The methods included conducting interviews with Administrative Law Judges (ALJs) and OSHRC personnel who provided qualitative insight into the program; review of case records and creating the life cycle of a case; conducting a regression analysis to isolate statistically significant factors that either expedited or slowed case progress; and administering surveys to samples of participants in both SP and conventional proceedings.

Interviews with Internal Stakeholders

To better understand the perspectives of ALJs and other internal OSHRC stakeholders and personnel, researchers conducted interviews in Washington D.C., Denver, and Atlanta. Interviews covered the value of Settlement Part, the reasons some cases take longer than others, possibilities for reducing case time, effective techniques used in facilitating settlement, the appropriate role and timing of discovery, areas in which Settlement Part can be improved, and areas for policy revision.

Most of those interviewed found Settlement Part beneficial, but offered suggestions for improvement. These included conducting hearings in more convenient places or through video-technology, improving and standardizing reporting procedures, and possibly changing the threshold limit for cases that proceed to Mandatory Settlement as a way to identify cases most likely to settle. There were a wide variety of opinions that reflected the data from the regression analysis that suggests individual case management practices can greatly decrease or increase the lifecycle and time to disposition of a case.

In summary, the interviews yield several recommendations and next steps:

- Provide training and regular continuing legal education in mediation and dispute resolution to every ALJ who is expected to serve as a settlement judge.

- Reconsider current policies on assigning cases to various regions and judges. Consider factors such as geographic proximity to case, industry expertise, and preferences of judges to act as settlement judge or traditional ALJ trying cases.
- Use empirical analyses to identify factors contributing to delay in resolution and identify relevant changes in judicial case management practices.
- Use empirical analyses to identify factors contributing to failure to settle, and use these to identify relevant changes in case assignment practices to Mandatory Settlement Part.

Analyzing Case Management and Archival Records from OSHRC Database

Analysis of case management and archival agency records revealed a number of factors that contribute to time to final disposition in the lifecycle of a case.

Descriptive Statistics on Agency Docket

An analysis of OSHRC's docketed cases over the past ten years revealed the following key findings about the enforcement environment in which the agency functions:

- On average, over the last ten years, Conventional cases with a hearing and those without a hearing settle in about the same amount of time. The average life cycle for Conventional/ with a hearing cases is about 178 days, while the average for Conventional cases that settle (most of which are MSP cases) is about 167 days.
- The life cycle for MSP cases was the longest in 2009, about 224 days on average. The increase was likely due to a fifty percent increase in caseload from 2005 to 2009. Specifically, the number of new cases docketed increased from about 2000 cases in 2005 to over 3000 cases in 2009.
- The number of items and citations per case varies year to year, yet there does not appear to be a clear pattern.
- The average penalty amount was at its highest in 2009, over \$58,500 which is more than double from 2008, when the average was around \$21,500. The increase is due in part to a couple of very large complex cases on the docket in 2009.

These findings suggest that there have been changes in the enforcement environment outside the agency that have put pressure on agency resources to handle caseload.

Regression Analysis on Factors that Contribute to Increased Cycle Times

The regression analysis yielded insight into variables that statistically increased or decreased the time to final disposition in the lifecycle of a case. We summarize the key findings from this analysis below:

- Average cycle time is one of the agency's performance indicators. The average cycle time for cases assigned to Mandatory Settlement Part is approximately 187 days for cases used in this analysis (subset of cases include the years 2000 to 2010). Yet, the data also show much dispersion around the mean. There is subset of outlier cases that take more than three (3) years to resolve. These cases distort the average for typical cases. We believe the agency can significantly improve mean cycle time for MSP cases by flagging cases at some interval, for example at 180 days out, to reevaluate the potential for settling these cases. Certain cases may require more direct case management or need to be reassigned to trial.
- The 2005 policy change lowering the threshold for MSP case eligibility from \$200,000 to \$100,000 did not by itself reduce or increase the average amount of time it takes to resolve cases. Instead, the entire system was affected by changes outside of OSHRC's control, specifically, increases in ALJ caseloads and the increases in case complexity after 2005.
- The presence of a repeat violation is a significant factor in time to disposition in the life cycle of a case. Violations considered "repeat" add about 15 percent to case resolution times (see Table B-1, Models 2 and 4). As a result the estimated time to resolve a case extends from 187 days to 215 days.
- A "willful" violation also significantly adds to time to disposition. Willful violations add between 8 percent and 11 percent to case resolution times (see Table B-1, Models 2 and 4). As a result the estimated time to resolve a case extends from 187 days to between 202 days and 208 days.
- Regression results (Table B-1) suggest that the types of violations are more important than penalty amounts in estimating the time it takes to resolve cases. However, the number of items and citations associated with a case do not meaningfully impact case resolution times.
- Case management activities have various effects on the time it takes to resolve cases. More case activity in the form of scheduling events, motions, and orders have a limited effect, adding only about three (3) percent or six (6) days to the average time it takes to resolve cases. However, when pleadings are suspended, the time to resolve a case increases by about 36 percent (67 days), bringing the estimated time to resolve a case to 254 days, on average. Similarly, when the initial settlement conference call is delayed more than 30 days, the life of a case extends by as much as 53 percent (99 days), extending the estimated time to resolve a case from 187 days to 286 days.
- The management of a case, including the time at which a judge schedules conferences and other matters, is as important to reducing cycle times as other factors. The agency may wish to flag cases that do not reach certain milestones,

including the deadlines specified in the Rules of Procedure. It may be useful to differentiate case processing delays from judge-granted extensions and stays to isolate the reason for longer than expected cycle times. It may be useful to count case cycle time with multiple metrics, not just from the date of assignment to the settlement judge. For example, a count from the date a case arrives at OSHRC and is docketed would isolate cases backlogged in the earliest period, while a count of days in discovery would help in determining both the efficiency and efficacy of discovery procedures.

- Some judicial case management practices are more effective than others in contributing to quicker case resolutions. Specific practices appear to expedite cases by as much as 12 percent (24 days) or add as much as 21 percent (39 days) to the life of a case. This finding suggests that improvements in average cycle times are possible if judges are encouraged to share best practices in case management.
- Cycle times vary substantially and significantly by DOL region. We believe these differences may be attributable to differences in industry, at least in part, as different industries have a higher presence in some areas of the country. The agency might consider whether it is feasible for some judges to “specialize” in facilitating resolution of cases involving certain industries, and whether to assign cases to judges based on their knowledge of relevant industry practices.

Case Factors Associated with Failure to Settle in Mandatory Settlement Part

The agency’s case management database allowed us to examine what factors are associated with a failure of a case to reach settlement in MSP. In drawing conclusions about factors that lead to settlement failures, it is important to keep in mind that failing to settle a case while in MSP is not the same as failing to settle altogether. Some cases enter MSP but fail to settle while in the program. These cases are reassigned to a trial judge and may eventually settle; however, they do not settle while in MSP. The same ALJs serve as both settlement judges and trial judges who oversee settlement in Conventional proceedings, although not on the same case. We cannot determine from this data what practices facilitate settlement. However, we can identify case characteristics that may help predict cases that are better candidates for settlement.

The key findings and recommendations that stem from this analysis are as follows:

- The most important case characteristic associated with settlement failure is the type of violation. Specifically, cases that have *willful* violations increase the probability of settlement failure by 69%.
- Cases that involve workplace accidents increase the probability of settlement failure by 88%.
- However, *repeat* violations do not appear to significantly affect the probability of

settlement failure while in MSP.

- When the OSHA violation involves a unionized business, the probability of settlement failure increases about 73%. Unionized businesses are much more likely to be cited in the first place, probably because they are larger businesses, so we cannot conclude from this result that union involvement as a party in the case actually increases the probability of settlement failure.
- Case management practices can increase the probability of settlement failure, and importantly settlement success. When cases are delayed as a result of suspended pleadings and orders granting extensions, the probability of settlement failure increases by about 76%.

It is of course likely that these factors are both interrelated and cumulative. This suggests that cases entailing willful violations, workplace accidents, large, unionized employers, and issues that require suspended pleadings or extensions may be more appropriate for Conventional than Settlement Part proceedings. Mandatory Settlement Part is a program that is part of a larger dispute system design at the agency. While the use of a \$100,000 threshold in itself does not pose a problem for MSP, it is possible that improving selection of appropriate cases for MSP using these case characteristics will improve the efficiency of the system as a whole.

The Impact of Participation in Mandatory Settlement Part on Future Compliance

The enforcement structure for national occupational safety and health policy involves OSHA inspections, citations for violations of rules, and assessments of penalties. Contested cases are subject to appeal to OSHRC. OSHRC's case management database allowed us to do an analysis on the relationship between participation in Mandatory Settlement Part and the likelihood that participants would reoffend or have subsequent violations. The key findings and recommendations that stem from this analysis are as follows:

- Assignment to MSP appears to have a small yet positive effect on future compliance. Comparing MSP cases to Conventional cases, parties from MSP cases are about 20 percent less likely to receive subsequent violations of any type.
- Penalties are a deterrent. Larger penalty amounts are associated with a lower probability of future citations. In addition, assignment to MSP has the highest impact when penalty amounts are highest and cases are near the \$100,000 threshold. For cases near the \$100,000 threshold that are also assigned to MSP, there is about a 69 percent probability that the case settled will not receive OSHA subsequent violations.
- Businesses are less likely to be cited for subsequent violations if the OSHA

inspection associated with the case was initiated because of a complaint by another party. This finding suggests that the complaining party may have an important role in the success of OSHRC cases in serving as an incentive for future occupational safety and health compliance.

This finding is consistent with research on mediation more generally. It suggests that MSP as a program plays an important and useful role in the larger scheme of occupational safety and health enforcement.

External Stakeholder Satisfaction with Mandatory Settlement Part and Perceptions of Fairness

We conducted a mail survey to determine how participants in Mandatory Settlement Part and Conventional Proceedings perceive these procedures, their satisfaction with their experience, and their perceptions of fairness. Several key findings emerge from the surveys:

- The majority of recent participants of both Mandatory Settlement Part and Conventional Proceedings are more satisfied than dissatisfied with various case management processes. Moreover, where some dissatisfaction was expressed, complaints are more directly related to the level of cooperation from OSHA participants in the case rather than OSHRC. If there is room for improvement, it may be in scheduling; about 49 percent of MSP survey respondents believe the scheduling of motions, hearings, and other matters was prompt; however, about 31 percent do not. Comparatively, participants in Conventional Proceedings appear to be generally more satisfied with the prompt scheduling of conferences, motions, and other matters; a total of 88 percent of survey participants either agreed or strongly agreed that the scheduling of conferences and other matters was prompt.
- Participants in both OSHRC programs give the agency high marks for procedural justice. With majorities ranging between 70 percent and 90 percent respondents report satisfaction with the fairness of OSHRC processes, satisfaction with the respect with which they were treated, and the level of control they had over the process. Majorities in both groups also reported that they were able to participate in their case as fully as they needed (MSP 82 percent; Conventional 94 percent).
- Participants in both OSHRC programs give the agency high marks for clarity of rules. About 84 percent of MSP survey respondents agree or strongly agree that OSHRC's rules of procedure are easy to understand, compared to 79 percent that express similar levels of agreement in the Conventional Proceedings survey.
- Distributive justice indicators also suggest high marks for the agency for both survey groups. A majority of MSP survey respondents reported that they were either very satisfied or satisfied (68 percent) with the overall outcome of their recent experience with the Mandatory Settlement Part compared to only 16% who

were very dissatisfied or dissatisfied. MSP results are comparable to those of Conventional Proceedings, in which a total of 79 percent of survey respondents were either satisfied or very satisfied with the overall outcome of the case compared to only 3 percent were either dissatisfied or very dissatisfied.

- Participants in both OSHRC programs report mixed opinions on the timing of the information exchange in their respective programs. In MSP, 41 percent of all survey respondents felt that discovery occurred at “just the right time,” whereas about 57 percent of respondents felt that discovery occurred either too early or too late. Of the Conventional survey respondents, 74 percent felt that information exchange in advance of any trial began at just the right time; 6 percent thought it began too early, and 9 percent thought it began too late. Fifty-three percent of Conventional survey respondents felt that information exchange in advance of any trial ended at just the right time, compared to 18 percent that thought it began early, and another 18 percent that thought it began late.
- The preferences for different adjudicatory processes differ by program. Recent MSP participants are more likely to prefer formal or official settlement processes (48 percent), than a trial on the merits (18 percent). This result implies most MSP participants agree with the assignment of their case to Mandatory Settlement Part. Conventional Proceedings participants share a similar but less strong preference for formal or official settlement procedures over a trial: based on their most recent experience, 33 percent of Conventional participants prefer to engage in formal or official settlement processes before a settlement judge, compared to 24 percent who prefer a trial on the merits.

These results suggest that MSP is generally successful in the view of external stakeholders. Had there been a substantial difference between MSP and Conventional proceedings in participants’ perceptions of fairness or satisfaction with various aspects of the programs, this might have prompted some reassessment of the program. However, these findings corroborate results in other analyses that MSP is playing an important and useful role in the overall dispute system design for handling cases at OSHRC.

Conclusions

The analyses of data from three sources, internal stakeholders, case management data, and external stakeholders, are consistent with each other and generally support the conclusion that Mandatory Settlement Part is successful in helping the agency achieve its objectives. The analyses also suggest that it may be possible to improve both the MSP program and the function of the overall OSHRC dispute system design of which it is a part by making adjustments in how cases are assigned to MSP using case characteristics, improving ALJ training in mediation and settlement practices, improving case management through sharing of best practices, and reconsidering certain internal organizational rules (e.g., regarding administrative stays and extensions). Considering the

changes in the external enforcement climate within which the agency operates, it has done an admirable job addressing an increased caseload within constrained resources while at the same time meeting the expectations of its external stakeholders.

Introduction

Federal executive branch agencies have authority to use negotiation, mediation, and other dispute resolution processes under the Administrative Dispute Resolution Act of 1996 (5 U.S.C.A. Section 571, *et seq.*; Federal Interagency ADR Working Group, www.adr.gov). The majority of federal agencies initially adopted dispute resolution in the areas of employment and procurement (Bingham and Wise 1996); the use of dispute resolution in civil adjudicatory proceedings and enforcement emerged more slowly (Nabatchi 2007). Under the Alternative Dispute Resolution Act of 1998, Congress directed federal civil trial courts to develop alternative dispute resolution (ADR) programs; many programs entailed mediation and the use of various designs to encourage settlement. Mediation is a process in which a third party who generally is neutral or impartial aids the disputants in negotiating a resolution to their dispute. Mediation usually entails identifying issues, using problem-solving communication techniques and caucusing with parties in confidential settings. While there is no consensus in using the term mediation to apply to settlement judges or judicial settlement conferences, it is generally accepted that judges use these techniques in this role.

The Occupational Safety and Health Review Commission (OSHRC) was one of the first agencies to develop an innovative program providing dispute resolution by agency Administrative Law Judges (ALJs) for cases involving civil enforcement. Settlement Part provides settlement judges for cases entailing certain penalty citations that come to OSHRC on appeal from OSHA. 29 C.F.R. § 2200.120, *et seq.* The program has both voluntary and mandatory procedures to promote settlement. A party may request that the Chief ALJ (CALJ) assign a case to a settlement judge for a period of not more than forty-five (45) days in Voluntary Settlement Part (VSP), and if the other party agrees, a settlement judge will attempt to help resolve the case.

A second program, Mandatory Settlement Part (MSP) applies to cases involving penalties of \$100,000 or more. The pilot program of Settlement Part originally required citations for penalties in excess of \$200,000 for mandatory referral into the program. In 2005, the regulations were amended to reduce the jurisdictional amount to \$100,000.

The regulations specify as follows for MSP. The CALJ assigns cases to a settlement judge. The settlement judge is a different ALJ from the one assigned to hear the case should it proceed to adjudication. The settlement judge has authority to issue a scheduling order and supervise discovery. At the conclusion of discovery the Settlement Judge will conduct settlement proceedings during a period not to exceed 60 days. 29 C.F.R. § 2200.120 (b)(2)(ii). If, at the conclusion of the settlement proceedings the case has not been settled the Settlement Judge notifies the CALJ, who in turn may, at his/ her discretion, allow an additional period of time, not to exceed 30 days. C.F.R. § 2200.120 (f)(1). Settlement judges also have the authority to “confer with the parties on subjects and issues of whole or partial settlement of the case and seek resolution of as many of the issues as is feasible,” to “require the parties to provide statements of the issues in controversy and the factual predicate for each party's position on each issue and may enter other orders...,” to “suggest privately to each attorney or other representative of a

party what concessions his or her client should consider and assess privately with each attorney or other representative the reasonableness of the party's case or settlement position,” and to “convene and preside over conferences between the parties” either in person or by telephone, as well as discretion to engage in other settlement activities. 29 C.F.R. § 2200.120(c) and (d).¹

MSP is part of a larger dispute system design at OSHRC that includes Simplified and Conventional Proceedings. Indiana University’s School of Public Environmental Affairs (under the aegis of the then Indiana Conflict Resolution Institute) conducted an evaluation of the pilot for MSP in 2001. Since that time, the MSP program has become permanent and has been in place across two presidential administrations with differing policy priorities. During this period, the nature and volume of cases brought to OSHRC have changed. The volume of cases has increased by about fifty percent; at the same time, the penalties OSHA assessed have increased and the nature of the citations has changed in that there are more willful charges.

In the context of these changes in the program and its environment, OSHRC commissioned a new evaluation of Mandatory Settlement Part. We have organized this report into sections that include executive summary, introduction and design for evaluation, and three main sections reporting results of internal stakeholder interview results, analysis of archival records in the case management database, and external stakeholder participant surveys.

Design for Evaluation

We designed the evaluation in collaboration with the agency through the following steps:

1. Consult with staff, including subject matter experts (SMEs) from the Office of the Chief Administrative Law Judge (CALJ) and/or their designee, and other stakeholders to determine project priorities and clarify goals
2. Assist in the development of performance indicators
3. Review data from the existing event driven case tracking system
4. Collaborate with staff to develop research design (survey instrument(s), interview protocol(s), and other preparation based on research questions)
5. Establish safeguards to ensure that the research design model is strategically focused on the quantitative and qualitative factors necessary to evaluate the overall effectiveness of the Agency’s Settlement Part Program
6. Collaborate with staff to identify and collect data

The design included three parts: internal stakeholder interviews, archival case management data, and external participant surveys.

Internal Stakeholder Interviews

¹ The procedural rules are set forth more fully at <http://www.oshrc.gov/procrules/2200subh.html>.

The first part of the research design involved internal stakeholder interviews. We planned to conduct a series of interviews with Administrative Law Judges, Commissioners, and various staff at OSHRC. There are two purposes to this component of the research: (1) to illuminate other aspects of the program that may be important to OSHRC internal stakeholders that may not surface in the event history analysis and the surveys; and (2) to explore the explanations and key factors related to cases that in which the settlement period exceeded one year. According to OSHRC yearly performance reports and other agency documents, one outcome goal of the agency is to resolve the oldest cases on the docket and in particular to increase the percent of cases that settle within one year. These interviews were useful for identifying extreme cases that are pulling up the overall average settlement time.

Case Management Database Analysis

To focus this portion of the evaluation, we identified the main research questions as whether Mandatory Settlement Part is more efficient than the conventional track for resolution of OSHA contested violations, and the efficiency in terms of cycle time of various Settlement Part processes. We then planned to conduct analyses including varieties of regression analysis on an appropriate sample of data from the case management database.

Research Question 1: Is Mandatory Settlement Part more efficient than the Conventional track for resolution of OSHA contested citations?

To answer this research question, we planned to compare outcomes of Conventional cases with those assigned to Mandatory Settlement Part while taking into consideration substantive case variations. More specifically, in May of 2005, the Commission lowered the threshold for cases eligible for Mandatory Settlement Part (29 CFR §2200.120) from \$200,000 to \$100,000. This provides a criterion for case selection. From a research design perspective, the first outcome of interest is the length of time in days until a case is resolved. (Most of OSHRC documentation refers to resolution time in days and key agency goals aim to reduce the average number of days for various categories of cases.) The Commission's rule change had no effect on two groups of cases, those above \$30,000 but less than \$100,000 and those cases above \$200,000. For analysis, we can treat the group affected by the change as the treatment group and those unaffected as control groups. Using a random sample of cases before and after the policy change date, we can test whether the lowered cap leads to quicker resolution of cases (all else equal). In other words, we can isolate whether the Mandatory Settlement Part processes or other factors are producing the observed outcomes.

We planned to use various regression equations to analyze the data. Regression is a widely used statistical technique for predicting the influence of various factors (independent variables) on an outcome (dependent variable). In the context of this study, we want to understand the influence that case characteristics have on the average number of days to resolution (cycle time). These include, but not limited to, industry type, market factors, nature of the case, level of complexity, area office, region, attorney

representation, prior history of complaints or relationship history, number of parties in a case, and others factors (for both Settlement Part cases and conventional cases). Using regression methods we can also report confidence levels; that is, we can definitively say which findings are not due to chance. We also want to account for the fact that cases may differ systematically in the different time periods. Regression allows us to analyze these factors to explain variation in time to resolution in ways useful to the Commission.

Research Question 2: How efficient are various Settlement Part processes?

This research focuses on the different structural elements of Settlement Part and how much time they add to (or subtract from) overall time to resolution. To identify the elements for our focus, we reviewed the narratives on proposed and amended rules (29 CFR Parts 2200 and 2204) and gleaned from them various elements in the dispute systems design for Settlement Part that the Commission may consider important. Likewise, it is clear from the various rule proposals and changes that the Commission continues to consider various rules that provide or restrict process flexibility.

More specifically, the Commission proposed amending rule 29 C.F.R. §2200.51 to eliminate the requirement for a pre-hearing conference to give judges more discretion in establishing deadlines for motions, completion of discovery, joining of parties, and similar matters. This rule was passed. Thus, the structure of Settlement Part raises more specific questions, for example:

- What is the time added or saved when the Settlement Judge requires the Respondent to be represented by a company official with authority to settle?
- What effect, if any, do the rules for the time and place for the settlement conference have on case resolution? 29 C.F.R. §2200.120 (d).

For this part of the study we planned to confine our selection to cases that entered Settlement Part and actually settled. Litigated cases will not be part of the sample. As framed, the outcome of interest is *settlement* and the time to settlement is the number of days a case remains in Mandatory Settlement Part, which we call cycle time.

The population of interest includes all those cases that are contested that meet the established criteria (> \$200,000 prior to May 2005; >\$100,000 after May 2005). The case selection method is considered “stratified random sample.” This method will ensure a sufficient sample of relevant subgroups while also guarding against an unrepresentative sample (e.g. cases from one region settled in voluntary settlement period). For analysis purposes, the time period of interest begins when the case is marked “complex” and qualifies for MSP.

We originally planned to use an analytical technique that focuses on the effect of factors that determine the length of time until the occurrence of an event, which is called event

history analysis (sometimes referred to as survival analysis). However, the nature of the case records in the database did not allow for that technique, so instead we relied on linear and logistic regression.

External Stakeholder Surveys

The external stakeholder survey was aimed at participants in Settlement Part and Conventional proceedings, specifically, solicitors from the Department of Labor (the attorneys who represent OSHA), Representatives of employers who contested the citation (attorneys and non-attorneys), and Representatives of Employees or unions (attorneys and non-attorneys). We planned to survey a sample of those individuals who were most recently and directly involved in all aspects of the Mandatory Settlement Part. We believed this group was unique in their first-hand experience. Their overall perceptions and/or concerns are key to evaluating satisfaction with process (procedural justice) and the outcome (distributive justice). This group is also likely to have important insights on the case management factors related to a cooperative solution (settlement) versus a non-cooperative solution (litigation). We assumed at some point members of this group made a rational choice between the two options.

The survey sample was not planned to be entirely random, but instead was stratified. In other words, we planned to systematically select cases that reflect a range of variation with respect to the outcome (perceptions about the efficiency and efficacy of Settlement Part) as well as the factors that impact the outcome (attorney and non-attorney representation, location of place cited, industry type, level of complexity, and parties with and without previous experience with OSHRC). Toward that end, we planned to explore the dataset to determine the various combinations of these characteristics.

Data Collection

In order to provide a comprehensive picture of the program, the evaluation design entailed triangulation of data sources: data from internal stakeholders, case management software at the agency, and external stakeholders who participate in OSHRC processes. Data collection methods included conducting qualitative interviews, collecting records relating to the recent history of the agency, creating a database of archival case records, and administering a mail survey.

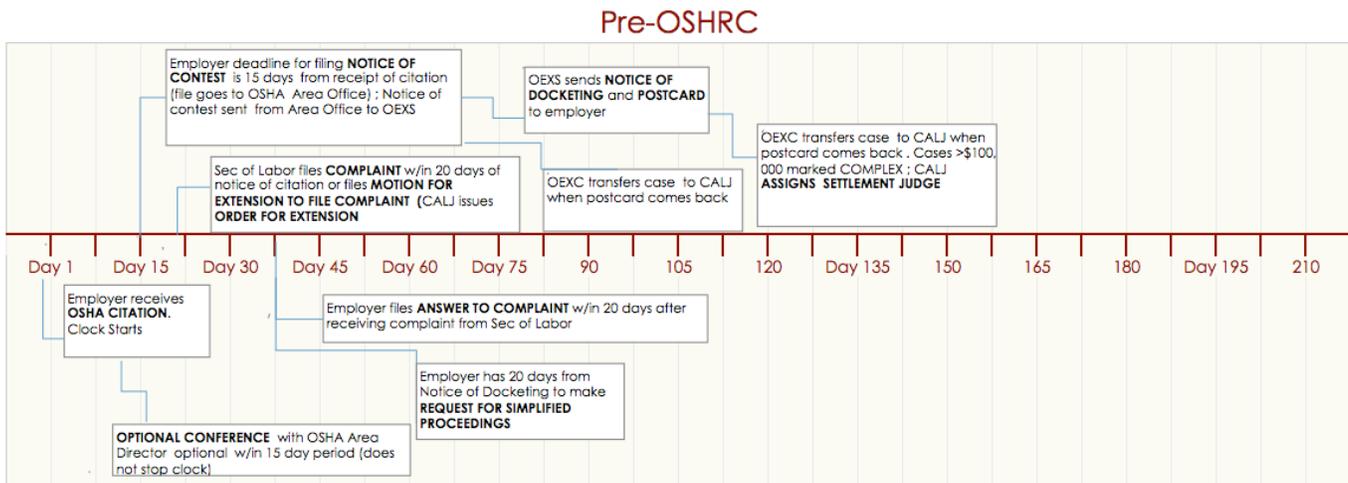
We gathered recent historical records on OSHRC and its various programs for case resolution. We reviewed several reports and agency-issued guidebooks to understand agency's goals, the criteria used for case assignment, and the various tasks associated with handling the different types of cases:

- Year-end Performance and Accountability Reports available through the agency website (FY 2009, FY 2010, FY 2011),
- Performance Budget and Justification Reports available through the agency website (FY 2009, FY 2010, FY 2011)
- OSHRC Strategic Plan 2010-2015

- OSHRC Guide to Conventional Proceedings (Nov 2007)
- OSHRC Guide to Simplified Procedures (March 2010)
- OSHRC Rules of Procedure (Aug 2005)
- Employee Guide to Review Commission Procedures (May 2006)

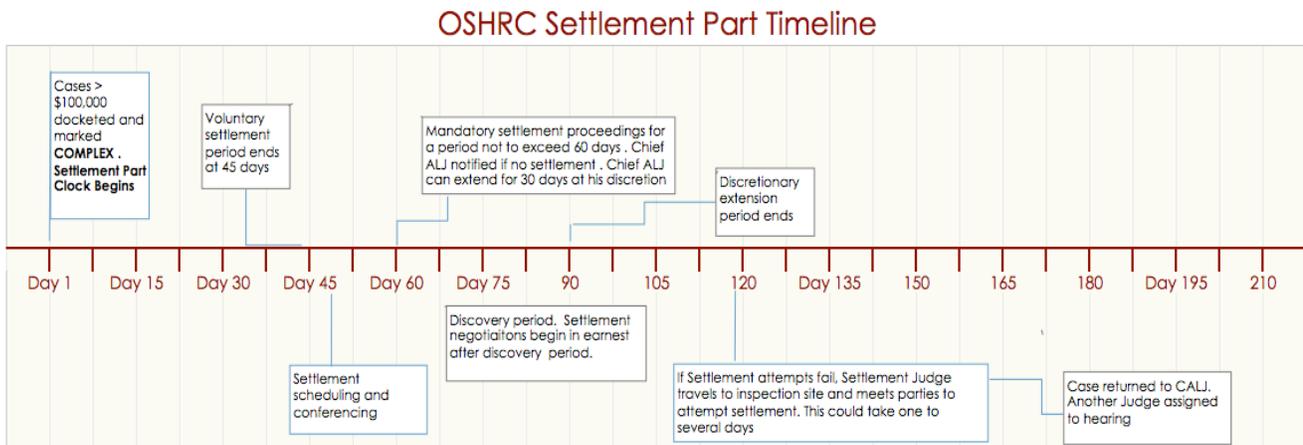
The agency also supplied samples of many of the documents used for case management and several sample legal documents (motions, scheduling orders, notice of decision). We reviewed various documents, rules and procedures from Occupational Safety and Health Administration (OSHA) to understand the different types of citations, items, and penalties assessed as well as to understand the timing of events pre-OSHRC. Our working understanding of the life cycle of a case from the time the employer receives an OSHA citation to the time it is resolved at OSHRC is illustrated in Figures 1 and 2. ²

Figure 1: Timeline for case processing pre-OSHRC



² Deadlines are typically counted as “working days.” See generally, Part 2200 Rules of Procedure at: <http://www.oshrc.gov/procrules/>.

Figure 2: Timeline for OSHRC Settlement Part



The agency’s information technology department supplied us with sample documents used for case processing and also provided us with data files and records dating from 1993 to September 2011 to use in our analysis. We worked closely with that department over several months to collect and prepare for analysis data stored in the Microsoft Access database and case management system. Because MS Access is a relational database, we had to convert files to a flat format compatible with our statistical software before we could undertake statistical analysis of the records.

We worked with four main files from MS Access and merged records to create one flat file compatible with our statistical software, Stata:

- Main case file (38, 834 records)
- Citation file (55,689 records)
- Events file (628,663 records)
- Hearings file (18, 927 records)

For the surveys, we entered responses into Qualtrics for analysis. For clarity of reporting purposes, we consolidated some categories of responses in the tables.

The researchers made every reasonable effort to verify the accuracy of the data, including identifying, verifying and correcting to the extent possible any discrepancies in the data. The validity of our analysis and conclusions are, in part, a function of the accuracy in OSHRC’s records.

Section A. Internal Stakeholders' Assessments of Mandatory Settlement Part

Introduction

Settlement Part uses a settlement judge design to mediate and resolve cases rather than adjudicate them. There is a limited body of early research on judges as mediators. Empirical field research on judicial mediation in civil trial courts tells us that judges are unlike most other mediators in that they are more powerful than the disputants; they can undertake a variety of techniques including “blunt utilization of power.”¹

From surveys of state and federal judges, Professors Wall and Rude identified three strategies judges use in settlement conferences; they named these the logical, aggressive and paternalistic strategies.² Their survey of lawyers revealed that they believed the logical mediation strategy to be most effective; a factor analysis identified this strategy as suggesting a settlement figure after asking for lawyers' input, evaluating or analyzing the case for one or both parties, or suggesting they split the difference.³

Wall and Rude found that lawyers believed that an aggressive judicial mediation strategy was least effective; this strategy included techniques where the judge coerces parties to settle, threatens a lawyer for not settling, and penalizes a lawyer for not settling. Somewhere in between fell what they called the paternalistic strategy, involving judges who meet with lawyers in chambers, talk to both lawyers together and separately about settlement, and call a certain figure reasonable.

Interestingly, judges in the Wall and Rude study did not identify a client-oriented strategy, but the independent survey of lawyers found that they highly valued this approach, which included judicial attempts to enhance attorneys' relationship with clients, persuade clients to accept a settlement, and convince clients that they are receiving their day in court.⁴ Nevertheless, a separate survey of judges and in-depth study of one judge's mediation cases indicated that the perceived and actual probability of settlement increased as the judge used more assertive techniques.⁵

These settlement judge techniques reflect either evaluative or facilitative mediation, which are more commonly practiced in courts. They do not use transformative mediation, which is a model that focuses on interpersonal relationships between disputants and more commonly practiced in divorce, employment, and community settings (Bingham, Hallberlin, Walker, and Chung 2009).

¹ James A. Wall, Jr. and Dale E. Rude, *Judicial Mediation: Techniques, Strategies, and Situational Effects*, 41(2) J. of Social Issues 47 (1985).

² Wall and Rude at 58.

³ *Id.*

⁴ *Id.* at 57.

⁵ James A. Wall, Jr. and Dale E. Rude, *The Judge as Mediator*, 76(1) J. of Applied Psychology 54 (1991).

Robinson (2012) conducted a more recent study that examined judicial settlement techniques in state courts, and found that “judges regularly encourage settlement by emphasizing costs and risks of litigation;” that they “are generally competent at encouraging compromise;” that “most judges can improve their effectiveness at facilitating communication” in settlement, and that “most judges avoid an intimidating approach and, in contrast, attempt to be likeable.”⁶ Robinson has also found that judges differ in the extent to which they consider their work promoting settlement to be mediation. Some judges embrace the concept of mediation as describing their work, while others consistently term it settlement. This study was not yet published at the time we conducted interviews, but is consistent with our findings here.

We interviewed key personnel of OSHRC, including judges, commissioners, and key staff to obtain their insights on OSHRC programs and how they might be improved. We also asked about best and most effective settlement practices. Eighteen interviews were completed in total. Most of the interviews were conducted face-to-face during December 2011 in Atlanta, D.C, and in Denver. Two interviews were completed by phone in early 2012. Since the interviews were conducted during the early stages of the research project, the responses provided the added benefit of informing the record analysis and design of the survey.

Protocol /Interview Design

In February 2011, Indiana University provided a draft of interview questions as part of the original research proposal. Over several months, every administrative law judge at OSHRC had the opportunity to review and comment on the interview protocol and the questions. The protocol was then further developed and refined in conjunction with the OSHRC’s contracting officer (CO) and the contracting officer’s technical representative (COTR). We submitted the protocol for voluntary interviews and questions to the Indiana University Human Subjects Committee, its research ethics Institutional Review Board (IRB), which approved them.

The final interview design consisted of two different sets of questions (Attached as Appendix A-1 and A-2), one for judges and one for OSHRC stakeholders who are not judges. Questions for administrative law judges covered general background information, including length of service, previous experience, and the extent of their training in dispute resolution techniques. We also asked questions to ascertain individual judges’ perspectives on various aspects of Mandatory Settlement Part (MSP), for example, why some cases take much longer than others to settle, what factors are likely to delay or expedite cases, what is the appropriate role of discovery, and what techniques they have found to be most effective in resolving cases. We asked non-ALJs about their role and familiarity with various aspects of the MSP program. We also asked this group whether they thought MSP could be improved in its design and management, and whether current regulations should be revised. Lastly, we inquired asked other internal

⁶ Peter Robinson, An Empirical Study of Settlement Conference Nuts and Bolts: Settlement Judges Facilitating Communication, Compromise, and Fear. 17 HARV. NEGOT. L. REV. 97, 101 (2012).

stakeholders what information might be useful for Congress, the public, or other agencies regarding MSP and OSHRC programs more generally.

Sampling and Responses

Our aim was to obtain the unique insights of OSHRC “insiders.” From a sampling perspective, we wanted to ensure a maximum diversity of interviewees, covering three groups of respondents: judges, commissioners, and key staff. Maximum diversity is best achieved through purposive sampling, not random sampling. Given the structure of the interview, results cannot be generalized to a wider population.

We interviewed key people from all three OSHRC offices (Washington, DC; Denver, CO; and Atlanta, GA) including nine active administrative law judges and two active or former commissioners. We also interviewed nine other key personnel from the major offices within OSHRC. Interviewees’ length of service with OSHRC ranges from three and one-half months to over thirty years. Interviewees also have a broad range of previous litigation and mediation experience. Participants in our sample span at least three presidential administrations.

All three targeted groups (judges, commissioners, and key staff) are represented in the responses. The interviews were fully voluntary and all respondents were informed on several occasions that they did not have to participate if they did not want to. In designing the process, we conducted the interviews where the respondents would feel most comfortable, which meant that interviewers traveled to Denver, Atlanta, and Washington D.C. All of the interviews were conducted by one of the two IU research co-principal investigators. With the help of the project CO, we made appointments ahead of time to accommodate tight schedules of the interviewees.

All respondents were told the purpose of the research, why they were chosen, and the expected duration of the interview. We designed the interview to take under 30 minutes, but also encouraged the respondents to take as long as they wanted to share answer the questions and share their thoughts. We also assured the interviewees that we would not disclose names or associate individuals with specific responses in our final report.

Results

We grouped the responses by topic and sub-topic based on the frequency of the sentiments and ideas expressed and also on the research goals. So as to maintain the confidentiality of the respondents we report responses in aggregate form. We only indicate categories of respondents where confidentiality will not be compromised.

Topic 1: The Value of Settlement Part Compared to Conventional Proceedings

ALJs

Most of the ALJs believe that MSP is a valuable part of OSHRC and very effective compared to more formal conventional proceedings. The judges cited several important characteristics of MSP. It requires less time than cases that demand a trial and does not require the judge to write a formal decision. Appeals are much less likely. With respect to benefits to the parties involved, some judges believe MSP is less adversarial and less stressful. As one judge commented, MSP is always better than long-term litigation because it allows parties to get on with their life. One individual expressed that MSP is used as a tool for managing a caseload that is growing in an environment where the budget is constricted.

A few judges did not express negative sentiments about MSP, but were also not necessarily convinced that MSP was always better than formal proceedings. As one judge expressed, one is not better than the other; the processes are complementary, and the value of MSP depends on the nature of the case. Another judge explained that complex cases with 150 citations should not be subject to MSP. This individual had a better experience in MSP with cases under \$500,000. Two judges expressed that mandatory settlement is a good concept for a certain range of cases. A few judges expressed some skepticism with respect to the comparative value of MSP. One said, "I don't think we know which process is better because it depends on whether the case should have been assigned to Settlement Part in the first place." A couple of judges believe that most cases will settle regardless of whether it is assigned to MSP or not. Another expressed "mixed feelings" and "mixed success" in MSP. One suggested adopting the concept used in the U.S. district court: make a meet and confer mandatory to determine if a case can be settled, certify to court, and hire a third party neutral for settlement.

One judge was not at all comfortable with requiring or mandating settlement for any cases, suggesting that assignment may conflict with the Commission's statutory mandate to provide all parties with the opportunity for a hearing. Another judge thought that there was no substitute for common law adversarial proceedings.

These comments reveal that there is wide variation in how ALJs view MSP and their roles both as ALJs and mediators or settlement judges. Some are more comfortable in the role of settlement judge than others.

Non-ALJs

Overall, internal stakeholders who were not judges (non-ALJs) were more skeptical of the value of MSP. Non-ALJs frequently expressed the belief that many cases would probably settle regardless of who they were assigned to or whether or not they were assigned to Mandatory Settlement Part. Another frequently expressed concern involved the criteria used to assign cases to MSP. A few non-ALJs believed that too many cases

are assigned to MSP that should instead be assigned to trial initially or designated as “simplified.”

Others expressed concern with the amount of time spent on settlement. According to one individual, settlement is not a complete panacea and too much time is spent on cases that are not likely to settle. Another suggested that settlement is not always the best answer, and that the public would not be satisfied if government settled some cases, suggesting that some cases require adjudication to set a public precedent or implement government responsibilities.

Non-ALJs also expressed some positive sentiments about the Mandatory Settlement Part program. One suggested that the amount of time and other resources spent on MSP is justified because settlement provides parties with ownership of the outcome and is important to ongoing relationships; more specifically, settlement is likely to increase compliance and promote a better relationship between businesses and unions. Settlement provides a big advantage if the workplace becomes more safe as a result. The same respondent added that it is also possible that settlement decreases the number of cases that reach the Commission level.

Topic 2: Reasons that Some Cases take Much Longer than Others

Only administrative law judges were asked directly, “Why do you think some cases take more than a year and sometimes more than two years to settle?” Thus, most of the sentiments expressed on this topic come directly from the judges. However, some responses to other questions by non-ALJs appropriately fit under this topic.

Judges frequently noted and discussed the criteria for case assignment, sometimes directly and sometimes more indirectly. For example, one judge stated plainly that case assignment does not always reflect the nature of the case. A few judges said the likelihood of settlement is often not driven by the amount of the penalties but by the larger agenda of the parties. As one judge put it, “Many cases have a back story that does not show up in the bare facts of the complaint.” Judges frequently gave examples of cases with larger implications for the parties than appeared on the surface. For example, some cases affect multiple locations for a business or have industry-wide implications. Also, businesses often want to avoid getting tagged with certain types of violations that adversely affect their ability to secure large contracts with government or have negative insurance implications.

For OSHA’s part, some judges believe that the Solicitor of the Department of Labor (DOL) is often not willing to settle from the start. A couple of judges observed that DOL often wants to send a message to industry regarding cases involving “willful” violations and cases involving “egregious” conduct. One judge suggested that DOL has varying priorities regarding the types of cases and violations for which it is willing (or not) to settle. Specifically, willingness varies with the priorities set by the presidential administration. Two judges observed that scheduling of cases and the likelihood of settlement are often hampered by jurisdictional issues. Specifically, some types of cases

involving willful violations require the involvement of multiple OSHA offices or approval from the OSHA Washington office. This adds days to the life of a case or reduces the prospects of settlement. Cases involving criminal allegations that invoke the jurisdiction of the Department of Justice (DOJ) also fall into this category. OSHRC has a policy of issuing a stay on these cases until the DOJ has finalized its action on the case. One judge suggested that OSHRC might want to revisit the practice of staying cases until after DOJ resolution.

The Judges noted several other characteristics of cases that are likely to add to the number of days a case remains active, including when technical reports are necessary to ascertain facts; when the underlying violations involve severe injuries or deaths; when many attorneys are involved in a case; when a case is highly publicized, when a union is involved and the union is simultaneously involved in collective bargaining for a contract; when cases are funded by a trade association; and when the underlying OSHA inspection was initiated by a grievance or complaint. One judge stated that when parties want to go through discovery, it adds time to the case. Another pointed out that when there are 3,000 pages of transcript, it is going to take a considerable amount of time considering the amount of citations. In addition, the recent retirement or departure of ALJs combined with the increase in caseload by fifty (50) percent has added to a delay in processing time.

Several respondents suggest that some case delays are avoidable. One respondent said that most judges can find a creative solution when they want to. Another said that “a sharp judge” recognizes the characteristics of a case that contribute to delays or settlement failures and that these cases can be reassigned.

Two respondents commented that the assignment of cases to specific judges may contribute to delays. A couple respondents said that some judges are better at settlement, while others are better at trials, suggesting the length of a case could be shortened by matching the type of case to the individual skill set of the judge. Similarly, one respondent suggested that some judges have developed an expertise regarding specific industries. One respondent said that assignments and scheduling are sometimes based on what is most convenient for the judge and not the parties. Another respondent suggested that assignments should be based on which OSHRC office was closest to the complainant business.

Topic 3: Proposals for Reducing Time on the Docket

All ALJs provided suggestions for reducing time a case spends on the docket. Several judges proposed setting early trial dates to encourage settlement. One judge thought this would increase the sense of urgency and help parties focus on the issues. Another judge contrasted this viewpoint by questioning the role an ALJ fulfills if parties are pressed to go forward when the case is not ready.

Other solutions included facilitating the exchange of documents and conversations. To better manage multiple cases, one judge advocated for sophisticated writers for judges

and instituting a case tracking system such as ProLaw. Another suggested consolidating cases by region and then by issue. One judge recommended separating the part of the case that will settle from that part that will go to trial to reduce time spent on the docket.

Although non-ALJs were not directly asked this question a few expressed their opinions on how to reduce time spent on the docket. One questioned why the agency did not use distance to hearing location as the basis for scheduling or assigning cases. This echoes the sentiment of the judge who suggested consolidating cases by region. Another believed that figuring out a way to recognize and manage novel cases would reduce the length of time spent on non-novel cases.

Topic 4: Effective Techniques Used in the Facilitation Settlement

Only ALJs provided responses for effective techniques used in facilitation settlement. Each judge used a variety of strategies. An overarching theme was that each case is unique and requires different methods.

Several judges viewed their role primarily as a facilitator and mediator. One judge uses storytelling to help people open up. Two judges preferred face-to-face meetings rather than telephone calls. One judge encourages parties to consider what they really need to get out of the case. Another found that keeping proceedings less formal and less adversarial works better. One judge uses role-playing exercises learned in a Civil Mediation course. This judge observed that when you start to see a case from the different perspectives of the parties, you get a better sense what will help and what will hinder settlement. Other tactics used by judges included avoiding hard and fast rules, attempting to make the pie bigger, using shuttle diplomacy, pushing the tables together in talks, and requiring the submission of a confidential statement from both sides.

In contrast to this, one judge expressed opposition to serving as a facilitator. This judge refuses to engage in shuttle diplomacy and likened it to negotiation for a used car. Another judge expressed a wish for videoconferencing, to reduce cost and time and cited the Social Security Administration as an example of an agency that currently does this. Another judge threatens a cutoff date for the reason that it is the only thing that promotes settlement. One judge expressed that there is some resistance internally to using techniques promoted by the Administrative Conference of the United States. Another said that some judges are better in trial and others are better at facilitating settlement or conducting mediation, and that judges should be matched to cases depending on what skills the case requires.

Topic 5: Appropriate Role of Discovery in Settlement Part

Only ALJs provided responses to the appropriate role of discovery in Settlement Part. The majority of those interviewed either preferred limited discovery or none at all. One observed that if a judge believes discovery will cause the parties to cement their position, it can be better not to engage in discovery or alternatively delay discovery. Other judges echoed similar thoughts including that the judge needs to be flexible in how much

discovery is appropriate or to only allow discovery for the purpose of exchange and production. One judge thought that discovery helped in some cases but not all, and another expressed that discovery has limited utility in the settlement process.

Conversely, one judge stated that although discovery requires more work from judges, the earlier it is done the better. Another offered that there should be a defined minimum and maximum amount subject to specific court approval, but that they could not imagine a meaningful discussion in which there had not been some discovery.

Topic 6: The Usefulness of Requiring Parties to Bring Officials Who Have Authority to Settle

Only judges were asked about the usefulness of requiring parties to be represented by officials who have authority to settle. Almost all judges thought it was critical and necessary to require this. The reasons for this included that egregious cases must go through Washington DC and that it could delay the settlement if no one was there. One judge stated that it could waste substantial time if parties strike what appears to be a bargain and then one of them says, "All I have to do is call the president of the company to get approval." There is the possibility the president will say no because he/she was not present at the settlement conference.

Judges who did not think it was necessary observed there are cell phones now, so parties can easily reach out to a decision maker. Another expressed that even if no one is there on the day of the discussion, settlement can always be done the next day or the day after. One judge thought that having an attorney there as the authority added objectivity, but another thought that lawyers can sometimes complicate things when playing that role.

Topic 7: Dispute Resolution and Mediation Training Needs

Only judges were asked about prior training and areas of improvement for training. All of the judges interviewed had completed some sort of mediation training ranging from a single-day course to certification in dispute resolution by the National Judicial College. The majority of judges believed that training was useful and thought that there were areas of improvement for education.

Areas of improvement included teaching techniques for mediation, negotiation, role-playing, and dispute resolution. One judge thought that education about the politics of OSHA would be helpful. Similarly, a judge thought it would be useful to focus on OSHA specific training, citing changes from administration to administration in pressing cases or labeling violations as willful. Another recommended waiving fees for judges to take courses. One took the Civil Mediation course and believes all judges can benefit from these courses and techniques. Several judges recommended a Reno, Nevada course as being educational and helpful.

One judge thought that experience was the most pivotal part of learning techniques for Settlement Part and stated that although courses would be helpful for some judges, it was

not necessary for all. Another echoed this by stating that time spent on cases is the best training. One of the challenges cited by judges was cost and limited resources to complete training.

Topic 8: Ways in Which Settlement Part Program, Design, Management, or Administration Can Be Improved

ALJs

Judges gave a variety of responses for ways the Settlement Part program could be improved. Several judges recommended that the case system management be improved by providing more complete case files and more detailed information at the beginning of the case. One judge wanted information to be provided about injuries or fatalities with respect to citations.

Several judges thought that the process management system should be improved. This included early assessment of expected number of days for trial, systematization of reporting data, and training for judges to handle complex cases that require discovery beyond exchange of documents.

Specific recommendations included kicking back or flagging a case that takes over two years to process. One judge thought that there should be leeway for threshold amounts that go to Settlement Part, and that the decision should be based on judges' caseload and number of judges available. Another judge thought settlement should always be optional and that videoconferencing would speed the process up and cut costs. One recommended that new judges be sent as soon as possible to the Reno, Nevada training for civil mediation and that they should accompany more than one judge when he/she goes out into the field to conduct mediation.

In addition to these suggestions, one judge thought that there should be an ongoing process internally for the judges and the agency to look at aspects of the Settlement Part program to ensure it is working well. They recommended establishing a number of questions that usually come up in cases and establishing a system for better recognizing high profile cases. Several judges proposed questions that should be standard or included in case files including the following: What occurred at OSHA? Who are parties? Were there deaths? How many parties were affected? What is really important to parties?

Non-ALJs

Non-ALJs also had recommendations that covered a broad spectrum. They expressed concern that cases are heard in inconvenient places and that costs can be significant to businesses. One individual thought that there should be higher accountability for reporting, and another recommended that judges be trained on what information should be tracked. One stated that the judges' mindset is too informal, and that there are no briefs, but rather ruling from bench with a minimal record.

Several individuals thought that willful citations presented a challenge in Settlement Part. Another stated that settlement is not always the best answer, and that government should not settle some cases. Another expressed that the term willful is a "problem for many parties and a barrier to settlement." One individual stated that it is difficult to draw a line between negligence and willfulness.

Other recommendations included increasing awareness of OSHA policy statements, changing e-mails from personal to government domain names, figuring out why some cases take as long as they do, and sending a case to pretrial first. Several individuals recommended expanding the number of categories for cases and developing new standards for handling criminal and/or novel cases. This included making a list of factors that underlie very tough cases including if the case involved willful violations, what the Solicitor's position is on settlement, and the type of violation being presented. Other suggestions included redefining what makes a case "complex" and assigned to judges for Settlement Part or trial based on their skill set.

Topic 9: Could Current Regulations of Settlement Part Benefit from Revision

ALJs

Several judges recommended that the threshold limit be revised for Settlement Part. One said that the "\$100,000 threshold is arbitrary and may be too low. Case load has increased 50 percent in the last year, and \$100,000 is not much anymore." Another recommended that the threshold be raised to \$150,000 or \$200,000. One thought that the threshold for Simplified Proceedings should not go up, and threshold for Conventional should not go down.

A few judges did not believe that rules needed to be revised; they thought the rules are already liberal and include a good deal of flexibility. One judge stated that timetables do not work. Another recommended that cases be assigned to different tracks and that regulations should reflect this. One judge did not like discovery and did not think it was as important as some judges do. Another thought that formal discovery process created a time constraint and that parties should be encouraged to provide voluntary information to each other. One suggested mandating meet and confer and letting parties hire private mediators.

Non ALJs

Non-ALJs offered suggestions for revision, including setting intervals for updating policies, upgrading the computer system, and expanding ADR. One individual was interested in feedback on threshold amounts, and another thought that judges needed to be trained in rules of federal procedure and best practices. One suggested that the Solicitor's office believes that judges often abuse their positions by demanding settlement. This individual also believed that judges were lax in record keeping. Another thought that there were issues regarding FOIA, but was not sure how this would be dealt

with in current regulations. A final suggestion was to get positions of parties early in the process for discovery.

Topic 10: What Information Might Be Useful to Communicate to Congress, Other Agencies, or the Public Regarding the Work of OSHRC and Settlement Part

Only non-ALJs were asked this questions regarding useful information to communicate to Congress, other agencies, or the public. Some of the suggestions included educating people that when there is a shortage of commissioners, it interferes with completing work at the agency. Another indicated Congress and the public need information to understand the good work and positive results produced by the agency. One individual stated that although Settlement Part requires a lot of resources, there are benefits if it increases compliance and promotes relationships between business and unions. If workplace becomes safer as a result, this is a big advantage.

Several individuals brought up that Congress, the public, and other agencies should be aware of the legacy of OSHRC and that it and OSHA are two different agencies. One thought that law clerks were unaware of the structure of agencies and different aspects of the process. Another was not sure if Congress recognized the importance of the agency.

Conclusions and Recommendations:

Mediation and settlement are an art, not a science. There is considerable variability in practice across the ALJs. There are observations among both judges and non-judges that various factors may be contributing to case delay, including scheduling, discovery, the nature of the violations and penalties, stays pending DOJ action, and possibly, individual ALJ familiarity with dispute resolution practices and mediation.

- The interviews yield several recommendations and next steps:
- Provide training and regular continuing legal education in mediation and dispute resolution to every ALJ who is expected to serve as a settlement judge.
- Reconsider current policies on assigning cases to various regions and judges. Consider factors such as geographic proximity to case, industry expertise, and preferences of judges to act as settlement judge or traditional ALJ trying cases.
- Use empirical analyses to identify factors contributing to delay in resolution and identify relevant changes in judicial case management practices.
- Use empirical analyses to identify factors contributing to failure to settle, and use these to identify relevant changes in case assignment practices to Mandatory Settlement Part.

With this focus for further analysis, we turn to the analysis of the case management database.

Appendix A-1. Final Internal Stakeholder Interview Protocol for ALJs

Interview Protocol for OSHRC Administrative Law Judges

Introduction: Thank you for taking time out of your busy schedule to answer questions to help in our study. The main goal in this research is to assess Occupational Safety and Health Review Commission's (OSHRC) "Settlement Part" and to recommend improvements, if necessary, that will enable OSHRC to provide fair and timely resolution of disputes relative to OSHA citations. Your opinion is very valuable to us, especially given your direct experience with the process. Once we get through the initial questions, which should take about 30 minutes, please feel free to comment on any other aspects of Settlement Part you think are important to cover that we have missed.

Before we begin, I want to emphasize that your participation is voluntary. You do not have to answer any questions that you are uncomfortable with. In addition, we will be reporting on aggregate not individual responses. This means that your name will not be associated directly with any comments/ opinions that you give. If, after completing the interview, you later wish to withdraw from the study, you may do so. In that event, we will not use your responses in any analysis.

Before proceeding, do you have any questions or concerns about the research ? [Pause to listen and respond]

[Proceed with open-ended questions, pause between questions to provide participants as much time as they need]

1. How long have you been a Judge for OSHRC?
2. About how many total cases have you been assigned in the past 12 months?
3. About how many cases for Mandatory Settlement have you been assigned in the past 12 months?
4. About how many cases for Voluntary Settlement have you been assigned in the past 12 months?
5. In your opinion, is Settlement Part preferable or not to conventional proceedings? If it is preferable, how or why? If it is not preferable, why not?
6. In your opinion, why do some cases take more than one year, and sometimes more than two years, to settle?
7. Is it possible to reduce the time these cases spend on the docket? If so, how? If not, why not?

8. What techniques have been particularly effective for you in facilitating settlement?
9. In your opinion, what is the appropriate role for discovery in Settlement Part?
10. In your opinion, how useful is it to require that the parties be represented by officials who have the authority to settle?
11. What dispute resolution or mediation training have you had, if any? Was it helpful? How might it be improved?
12. In your opinion what training might be most helpful for Settlement Part?
13. Are there ways in which the Settlement Part Program, its design, management, or administration, could be improved? If so, how?
14. Do you believe that the current regulations on Settlement Part could benefit from revision? If so, how?
15. We welcome any other information, observations, or suggestions regarding Settlement Part that you think we should consider in this study.

[Pause. Record notes on any other information that the participant would like to share]

Appendix A-2. Final Internal Stakeholder Interview Protocol for Non-ALJs

Introduction: Thank you for taking time out of your busy schedule to answer questions to help in our study. The main goal in this research is to assess Occupational Safety and Health Review Commission's (OSHRC) "Settlement Part" and to recommend improvements, if necessary, that will enable OSHRC to provide fair and timely resolution of disputes relative to OSHA citations. A large part of the study focuses on your case processing system and analysis of that data. Another part deals with the experiences of the judges and other stakeholders directly or indirectly involved in the process. Even though you do not participate directly in Settlement Part in the same way the judges, attorneys, and union representatives do and do not have access to any confidential information shared during settlement conferences, you are an important part of OSHRC and your opinion is valuable to us.

We want to make sure you have the opportunity to share any thoughts about the process that you think are important for us to know. We also want to give you the opportunity to ask us any questions about the study. We only have a few questions, which should only take about 30 minutes. Please feel free to comment on any other aspects of Settlement Part you think are important to cover that we may have missed.

Before we begin, I want to emphasize that your participation is voluntary. You do not have to answer any questions that you are uncomfortable with. In addition, we will be reporting on aggregate not individual responses. This means that your name will not be associated directly with any comments/ opinions that you give. If, after completing the interview, you later wish to withdraw from the study, you may do so. In that event, we will not use your responses in any analysis.

Before proceeding, do you have any questions or concerns about the research? [Pause to listen and respond]

[Proceed with open-ended questions, pause between questions to provide participants as much time as they need. It is also important to allow the participants to take the responses in whatever direction they feel is most appropriate]

What is your current position at OSHRC?

How long have you worked with OSHRC?

How would you describe your involvement in the settlement part process at OSHRC?

Are there ways in which the Settlement Part Program, its design, management, or administration, could be improved? If so, how?

What information do you think might be useful for us to communicate to Congress, other agencies, or the public regarding the work of OSHRC, and in particular, regarding Settlement Part.

Do you believe that the current regulations on Settlement Part could benefit from revision? If so, how

We welcome any other information, observations, or suggestions regarding Settlement Part that you think we should consider in this study.

Notes:

Section B. Efficiency in Case Management through Analysis of Archival Case Records

Introduction

Dispute resolution efficiency is often measured in the time it takes to resolve a case and the degree to which disputants actually comply with the resolution, usually measured in terms of repeat disputes in a civil trial context or recidivism in the context of victim-offender mediation in the criminal context.

Researchers who study court-connected dispute resolution have used archival data sources to examine how long cases remain on the court's docket with and without ADR.¹ For example, researchers found that arbitrated cases had shorter disposition times than litigated cases,² and that arbitrated cases had shorter disposition times than cases litigated before the arbitration program was implemented, without slowing the disposition of cases left for litigation.³ Researchers studying ADR programs in Maine courts compared time to disposition and settlement by examining case records before and after the ADR program;⁴ they found support for the general proposition that scheduling an ADR intervention earlier in the life of the case is better.⁵ So too, researchers studying an arbitration program in civil trial courts in Arizona found that the earlier in the life of the case a county tended to assign a case to arbitration, the shorter the mean disposition time.⁶

¹ The following discussion is drawn in large part from Lisa Blomgren Bingham, Tina Nabatchi, Jeffrey Senger, and M. Scott Jackman. *Dispute Resolution and The Vanishing Trial: Comparing Federal Government Litigation and ADR Outcomes*, 24(II) OHIO STATE J. ON DISP. RESOL. 225 (2009).

² *E.g.*, MEIERHOEFER, at 95 (citing Eastern Pennsylvania results using a before and after design reported in E. LIND & J. SHEPARD, EVALUATION OF COURT-ANNEXED ARBITRATION IN THREE FEDERAL DISTRICT COURTS (Federal Judicial Center rev. ed. 1983)).

³ Roger A. Hanson & Susan Keilitz, *Arbitration and Case Processing Time: Lessons from Fulton County*,

14 JUST. SYS. J. 203 (1991).

⁴ Howard H. Dana, *Court-Connected Alternative Dispute Resolution in Maine*, 57 ME. L. REV. 349, 375 (2005).

⁵ *Id.* at 390–91 (2005) (reporting on a study of the courts comparing data from 2000, 2002, and 2003). A study of 1995–1997 Maine pilot program also found support for an earlier intervention. *Id.* at 372. Similarly, Schmitz argues that earlier in the life of the case is better. Suzanne J. Schmitz, *A Critique of Illinois Circuit Court Rules Concerning Court-Ordered Mediation*, 36 LOY. U. CHI. L.J. 783, 792 (2005).

⁶ Roselle L. Wissler & Bob Dauber, *Court-Connected Arbitration in the Superior Court of Arizona: A Study of Its Performance and Proposed Rule Changes*, 2007 J. DISP. RESOL. 65, 79–80 (2007).

The most comprehensive evaluation of court-annexed programs to date is popularly known as the Rand Report.⁷ That study found no significant decrease in time to disposition in six court programs using mediation or early neutral evaluation. In one district, ADR increased time to disposition, but this was apparently a function of selection bias, in that judges encouraged the most intractable cases to use mediation and thus delayed trial. Similarly, the study found no significant evidence of cost savings.

Meierhoefer found no overall evidence that court-annexed arbitration reduced time to disposition in a random assignment design.⁸ Other scholars, using a random assignment design to evaluate court-ordered arbitration in North Carolina, found that various programs reduced disposition time by 10%–45%.⁹ Another group of researchers also used a random assignment design in the evaluation of the Western District of Missouri’s Federal District Court Early Assessment Program.¹⁰ Early assessment is a form of early neutral evaluation in which a third party examines the merits of the case and gives an opinion on its strengths and weaknesses to the disputants. The evaluation examined the program over a period of four and one-half years, using random assignment including over three-thousand cases assigned to one of three treatments: mandatory, voluntary, or no assessment. In mandatory assessment, the parties received a neutral evaluation of the merits of their case whether they asked for one or not.¹¹ In voluntary assessment, the parties could request the evaluation.¹² In the no assessment condition, there was no neutral evaluation of the strengths or weaknesses of the case before trial.¹³ They found that mandatory assessment cases terminated significantly earlier than both the voluntary assessment and no assessment groups.¹⁴ The researchers attributed the result in part to the timing of the assessment, in that a notice of session date was sent to the mandatory assessment cases when they were ready, while an invitation to participate was sent to the voluntary cases, creating a lag time during which the court and parties scheduled the session.¹⁵

Maine courts also used random assignment to assess impact on disposition time; while cases opting into ADR voluntarily had the shortest mean disposition time, cases

⁷ KAKALIK, *et al.*, *An Evaluation of Mediation and Early Neutral Evaluation Under the Civil Justice Reform Act* (1997).

⁸ MEIERHOEFER, *supra* note 7.

⁹ STEVENS H. CLARKE ET AL., *INST. OF GOV’T, COURT-ORDERED ARBITRATION IN NORTH CAROLINA: AN EVALUATION OF ITS EFFECTS* (1989).

¹⁰ DONNA STIENSTRA ET AL., *FED. JUD. CTR., REPORT TO THE JUDICIAL CONFERENCE COMMITTEE ON*

COURT ADMINISTRATION AND CASE MANAGEMENT: A STUDY OF THE FIVE DEMONSTRATION PROGRAMS ESTABLISHED UNDER THE CIVIL JUSTICE REFORM ACT OF 1990, 219 (1997).

¹¹ *Id.* at 226–231.

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.* at 247–248.

¹⁵ STIENSTRA ET AL., *supra* note 16, at 250.

randomly assigned to ADR also terminated more quickly.¹⁶ However, recent studies reveal that the length of time a case spends on the court's docket is partly a function of the timing of the ADR intervention.¹⁷ Spurr found that early intervention by a judge imposing a time schedule created a deadline effect and resulted in earlier settlement.¹⁸ In comparison, where mandatory arbitration is scheduled relatively late in the life of a case, it will tend to lengthen the time cases spend on the court's docket.¹⁹ This is because litigants delay their own bilateral settlement discussions and instead wait for the ADR intervention.²⁰ Lawyers delay settlement negotiations until the eve of—or after—arbitration.

Compliance, also called durability of settlement, is also a feature of efficiency in dispute resolution. Wissler (2004) surveyed the empirical literature on durability of settlement in civil trial court mediation programs, and found that “eight studies assessed compliance with the mediated agreement, typically between one and six months after mediation, and found the rate of full compliance to be between 62 and 90 percent;” she also found that as compared to cases that went to trial, most studies “found a higher rate of full or partial compliance with mediated agreements than with trial decisions.”²¹

The key finding in much of the research on efficiency in time to settlement is that it is a function of dispute system design, more specifically, the precise structure of the program for case management. How deadlines are set and events scheduled has a significant impact on time to settlement. A key finding on compliance or durability is that, despite variations in dispute system design, mediation tends to improve compliance.

Efficiency of Settlement Part

At OSHRC, cases are first docketed by Office of the Executive Secretary (OEXSEC), when the agency receives notice that an employer or affected Employees have contested an OSHA citation. From there, the case is sent to the Chief Administrative Law Judge (CALJ), who in turn assigns the case to an administrative law judge in one of the three offices (Denver, Atlanta, or Washington, D.C.). Based on OSHRC's past reports, the agency begins counting “cycle time” with the date of assignment to the judge. The end

¹⁶ Dana, *supra* note 10 at 368 (examining 1988–1990 pilot in superior court).

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Robert J. MacCoun, *Unintended Consequences of Court Arbitration: A Cautionary Tale from New Jersey*, 14 JUST. SYS. J. 229 (1991); ROBERT J. MACCOUN ET AL., ALTERNATIVE ADJUDICATION: AN EVALUATION OF THE NEW JERSEY AUTOMOBILE ARBITRATION PROGRAM (1988).

²⁰ Some have recommended mandatory mediation programs specifically to create a deadline effect to trigger settlements. *See e.g.*, Christopher Fugarino, *Mandating Mediation for Cases Before the U.S. Court of Appeals for Veterans Claims Can Improve the Efficiency of the Court and the Experience of the Parties*, 16 FED. CIR. B.J. 379, 384 (2006/2007).

²¹ Roselle L. Wissler, *The Effectiveness of Court-Connected Dispute Resolution in Civil Cases, Effectiveness*, 22 CONFLICT RES. Q. 55, 60 (2004) (see studies cited).

date is marked by the date the parties reach a settlement agreement, or alternatively by the judge's decision.

Cases proceed along two main tracks: Simplified or Conventional. Mandatory Settlement Program (MSP) is an alternative dispute resolution program within the Conventional Track. Simplified cases are identified in OSHRC's database with the data field "EZ Trial." If the case is not marked as "EZ Trial," we assume it has been assigned to the Conventional track. By definition all cases not assigned to "Simplified" are considered "Conventional." Cases assigned to Simplified and Conventional can settle one of two ways, that is, either with or without a hearing.

As a preliminary step we look at cycle times for the various categories of cases from the OSHRC database. We exclude records with a docket date prior to the year 2000 and focus on records from 2000 to the most recent cases in the database, which are dated September, 2011.

The average cycle times over 10 and one-half year period are as follows:

- The average cycle time for cases assigned to Simplified and settled (no hearing) is 85 days.
- The average time for Simplified cases that required a hearing is 181 days.
- The average cycle time for Conventional cases that settled is about 167 days (Most cases assigned to Mandatory Settlement are also in this group).
- The average cycle time for Conventional cases with a hearing is 178 days.

OSHRC over a decade: Descriptive Statistics

Changes in Presidential administrations are likely to change the environment for the Settlement Part Program, which in turn will impact the timely resolution of cases. Figures B-1 to B-6 present a series of descriptive statistics drawn from the various Microsoft Access database files supplied to us by OSHRC. At this point we are interested in general trends so we do not differentiate cases that are assigned to MSP and then fail to settle (about 5%), nor do we differentiate the small number of cases considered "voluntary settlements."

These illustrate changes in the environment for the Settlement Part program in 1) Cycle Times for All Cases and Programs; 2) New Cases Docketed; 3) Changes in Distribution of Case Types; 4) Average Penalties Per Case; 5) Citations Per OSHRC Case; and 6) Items Per OSHRC Case.

A Spike in Cycle Times and Variability

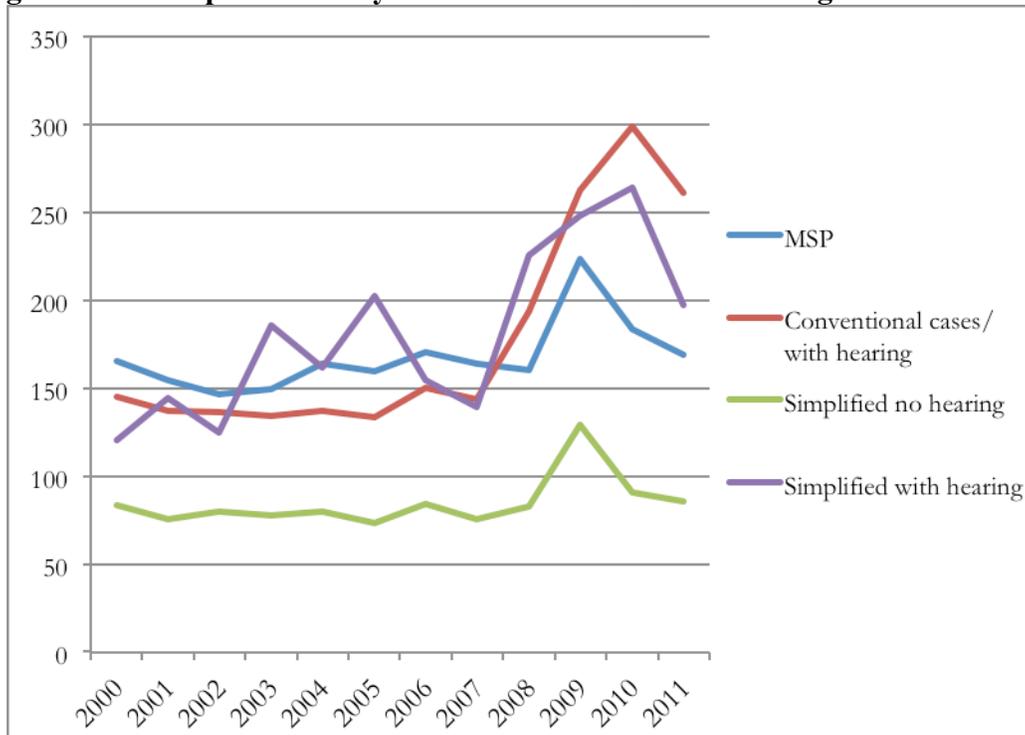
Figure B-1 depicts cases over time according to how they were resolved. Cases are resolved in one of four ways: in Simplified, without a hearing; in Simplified with a hearing; in Conventional without a hearing; in Conventional with hearing.

Referring to Figure B-1, resolution times are shortest for Simplified cases (yellow/green line) that settle and do not require a hearing. Cases on this track hit their shortest cycle times (about 74 days on average) around 2005 and hit their longest cycle times (about 130 days on average) in 2009. Resolution times for Simplified/no hearing cases vary the least over time. However, there is a noticeable spike in resolution time starting in 2008 and peaking in 2009, and then a decline in 2010 and 2011.

Simplified cases that require a hearing (purple line) have always taken longer than their counterparts. Case resolution times were at their shortest (about 125 days on average) and at their longest (about 265 days on average) in 2009. There also appears to be an improvement in cycle times in most recent years. Resolution times for this group are the least predictable and most volatile. The increases and decreases in resolution times are more severe, and the upward trends starts about a year earlier compared to Simplified cases that settle.

Conventional cases are represented by two trend lines, one for those that settled (blue line) and one for those that did not settle (red line). Almost all cases assigned to MSP settle without a hearing so the majority of MSP cases are reflected in the blue line. The shortest resolution times (about 147 days on average) for this group appear in 2002 and the longest (about 224 days on average) are in 2009. There is a noticeable upward trend over the 2007- 2008 period and then a decline in resolution times and efficiency gains starting in 2009. The shortest resolution times (about 134 days on average) appear around 2005 and the longest resolution times (around 299 days on average) appear in 2010. Unexpectedly, Conventional cases with a hearing took less time than those without a hearing between the years 2000 and 2008. From 2008 forward Conventional cases with a hearing appear to be resolved in less time than their counterparts. As with the cases in all three other categories there is a noticeable decrease in resolution times in 2010 and 2011, suggesting recent improvements in case handling or differences in case characteristics.

Figure B-1. Comparison of Cycle Times for All Cases and Programs: 2000 -2011

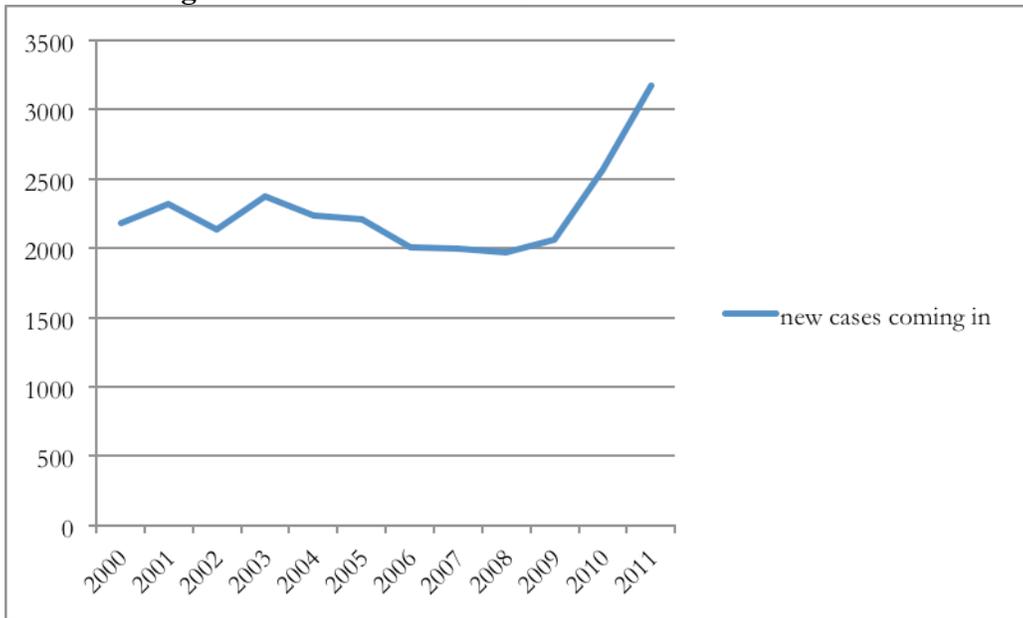


Increases in Judicial Caseload

Figure B-2 shows new cases docketed each year; it suggests that the spike in resolution times is likely due to increased caseload for the judges. The count of cases for this graph comes from the OSHRC database for years 2000 to 2010. To avoid using a half a year’s data for 2011 we substituted the case count from the database with the number of new cases reported in the agency’s 2011 Year-end Performance and Accountability Reports available on the agency website.

From 2000 to 2003 the agency docketed between two thousand (2,000) and two thousand three hundred (2,300) cases per year. The number of new cases remained relatively consistent from 2005 to 2008 and through part of 2009. There was a significant increase in new cases around 2009 and the trend appears to be continuing. In the year 2010, over two thousand five hundred (2,500) new cases were docketed, and in 2011 over 3100 new cases were docketed.

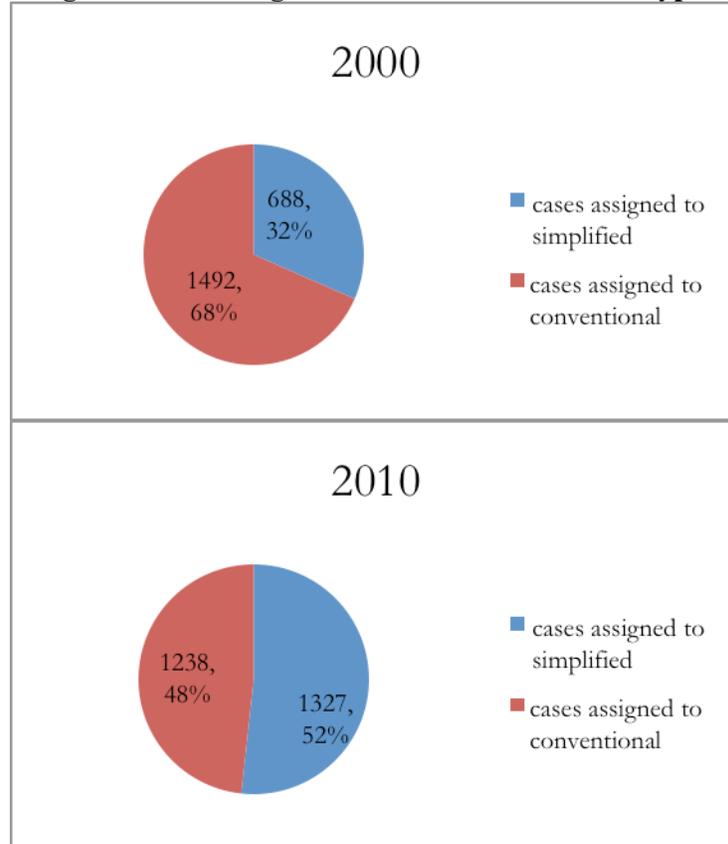
Figure B-2. Trend in New Cases Docketed: 2000 -2011



Changes in Case Types

Changes in the characteristics of cases docketed at OSHRC are also likely to affect resolution times. A comparison of the number of cases assigned to Simplified versus the number of cases assigned to Conventional in the years 2000 and 2010 shows an increase in the proportion of overall cases that are assigned to Simplified. Conventional cases were about 68% of the agency's docket in 2000, but as of 2010 Conventional cases make up a little less than half (48%) of the docket.

Figure B-3. Changes in Distribution of Case Types



Changes in Penalties, Citations, and Items

The Occupational Safety and Health Administration (OSHA) labels violations as “Serious,” “Willful”, “Repeat,” “Other” or “Unclassified.” There is a different penalty structure associated with different types of violations. Also, each citation can have multiple items. According to a recent US Department of Labor news release dated April 22, 2010, the current maximum penalty for a serious violation, one causing death or serious physical harm is \$7,000. The maximum penalty for a willful violation is \$70,000. OSHA also maintains that monetary penalties for violations of the OSH Act have not increased since 1990, despite inflation. Under a recently announced policy change, the average penalty for a serious violation will increase from about \$1,000 to an average of \$3,000-\$4,000 (OSHA 2010, Release 10-538-NAT). Notwithstanding, OSHA has shifted its focus on different types of violations and on different industries over the past several years. For example, OSHA reports a 15% increase in the total number of “serious” violations between 2005 and 2010 and a 217% increase in “willful” violations over the same period (OSHA 2010). These changes affect the total dollar amount of penalties contested as well as the complexity of the cases that come before OSHRC judges.

Looking at the average penalties per case over time provides evidence of the changes in the characteristics of OSHA disputed cases resolved by OSHRC judges. The total penalties amount includes penalties for all cases, not just those in MSP. Judges assigned to Settlement Part cases also handle cases in Simplified so changes in case characteristics for cases assigned to Simplified are also likely to affect resolution times for MSP. The total penalties per case were at their lowest in 2002, averaging about \$13,923.00, and at their highest in 2009, averaging about \$58,520. In 2010, the average penalty amount for OSHRC cases declined to about \$31,291.

The average citation count over the previous ten years is 1.4 and the average number of items associated with those citations is about 5. We consider the impact of marginal changes in citations and number of items contested more in the regression analysis reported in the next section.

Figure B-4. Average Penalties Per Case: 2000-2010

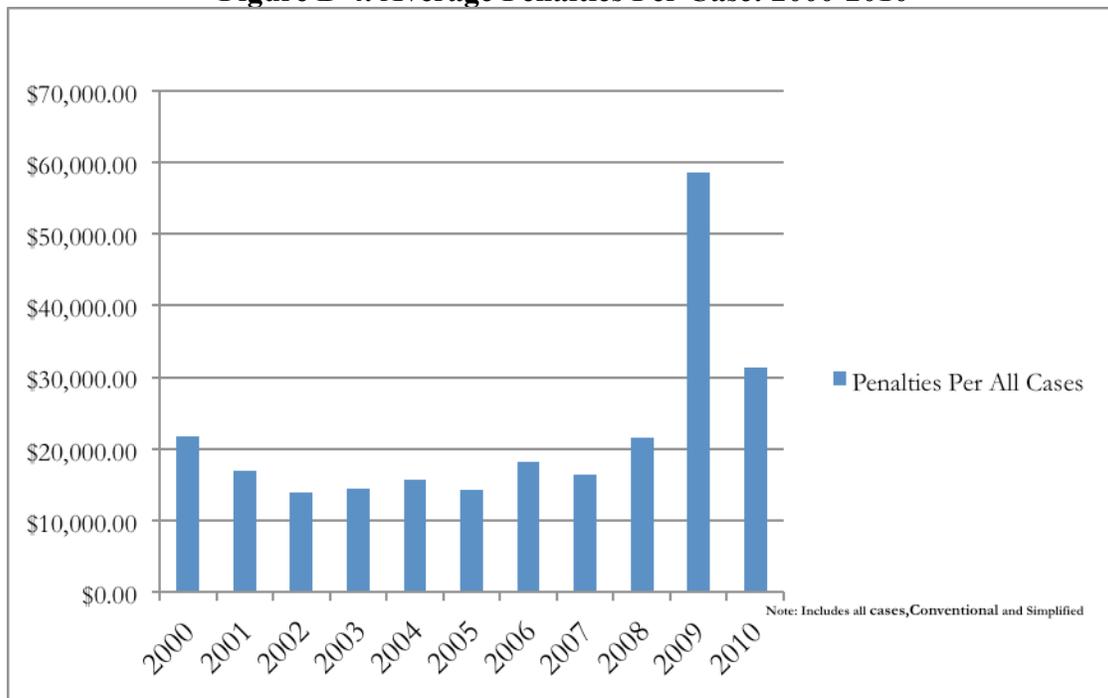


Figure B-5. Citations Per OSHRC Case Over Time: 2000-2010

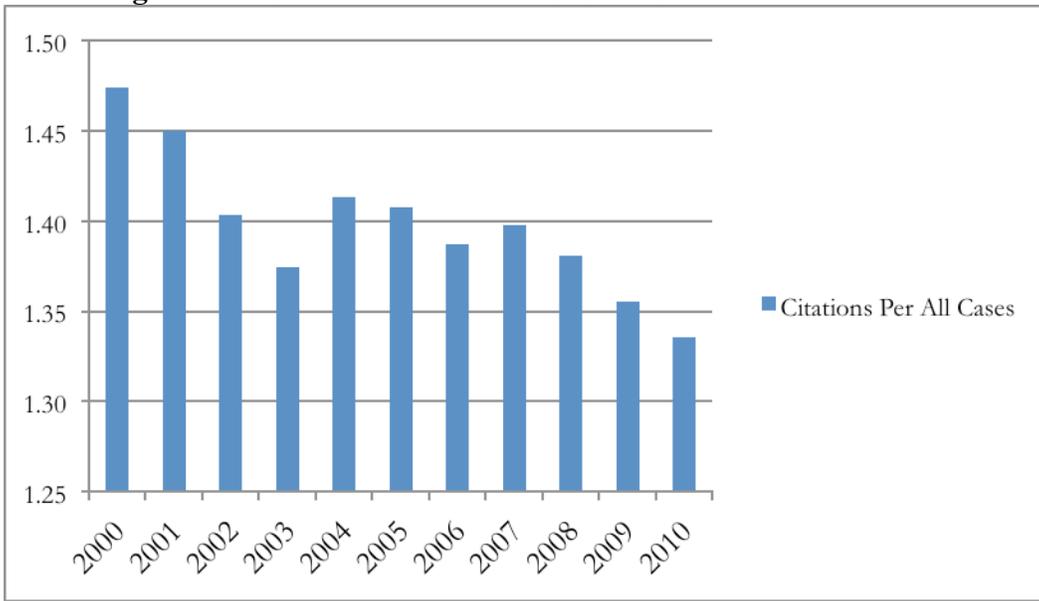
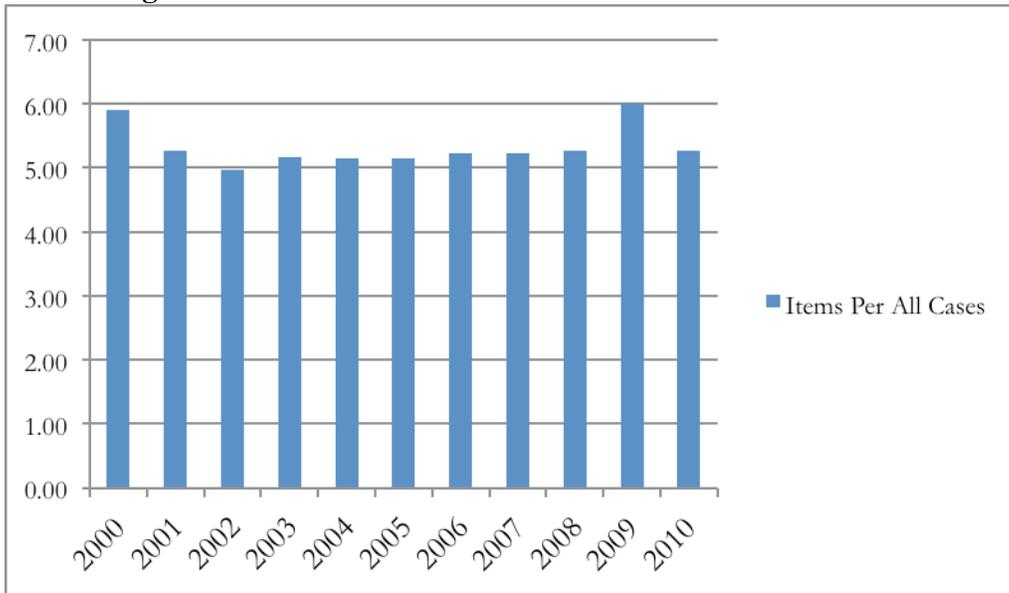


Figure B-6. Items Per OSHRC Case Over Time: 2000-2010



A few key findings surface from looking at trends:

- On average, over the last ten years, Conventional cases with a hearing and those without a hearing settle in about the same amount of time. The average life cycle for Conventional/ with a hearing cases is about 178 days, while the average for Conventional cases that settle (most of which are MSP cases) is about 167 days.
- The life cycle for MSP cases was the longest in 2009, about 224 days on average. The increase was likely due to a significant increase in caseload; the number of new cases docketed increased from about 2,000 cases in 2005 to over 3,000 cases in 2009.
- The number of items and citations per case varies year to year, yet there does not appear to be a clear pattern.
- The average penalty amount was at its highest in 2009, over \$58,500 which is more than double from 2008, when the average was around \$21,500. The increase is due in part to a couple of very large complex cases on the docket in 2009.

We turn to multivariate analyses to understand the causes of variations in cycle time.

Regression Analysis to Identify Factors Associated with Longer Cycle Times

Multivariate analyses such as ordinary least squares regression (OLS) is a valuable tool for understanding causality. One of the advantages of OLS is that it allows researchers to test the effects of different factors (predictor variables) on an outcome of interest while holding other factors constant. By including control variables in regression equations, researcher can determine whether the effects persist when other relevant information is taken into account. Our regression analyses are informed by the literature on dispute resolution and by our interviews with internal stakeholders as well as by factors uncovered in looking at trends in cycle time over the past decade. For example, we add predictors and controls in our regression model to account for: penalties associated with each case; numbers of items and citations associated with each case; and citation types. By adding controls for each year, we can also pick up on some trends we do not yet fully understand.

For example, we observe changes over time in the proportion of cases assigned to Simplified and Conventional. This tells us that there are unobserved differences among cases affecting their assignment that may not be measured with other variables. Adding year variables to the model helps to account for the “unobserved heterogeneity” associated with these cases that may be impacting cycle times. We also know from our internal stakeholder interviews that judges apply different settlement techniques in resolving cases in Settlement Part and that some DOL solicitors may be less inclined to settle cases than others. Our regression analysis takes into account all of these factors.

The purpose of this section is to identify factors that cause or drive cycle time. We can use regression analyses to answer specific research questions about the efficiency of Mandatory Settlement Part procedures:

- How did changes in the criteria for assigning cases to Settlement Part affect cycle times?
- What is the impact of the factors we have identified so far on cycle time, and does the impact persist when we control for case characteristics and other features of OSHRC programs?

How did changes in the criteria for assigning cases to Settlement Part affect cycle times?

Before May 2005 cases with proposed penalties totaling \$200,000 or more were considered eligible for MSP. The rule change in May 2005 lowered the threshold to \$100,000. We use the rule change in May 2005 as the foundation for a quasi-experimental research design. The rule change is an exogenous that affected some but not all groups. In the language of experimental research, the group affected by the change (or stimulus) is the treatment group. The group not affected by the change is referred to as the control group. In the present research our treatment group includes cases over \$100,000 but less than \$200,000. Our control group includes cases not affected by the policy change. Cases over \$200,000 were not affected as they already qualified for MSP. Cases with penalties over \$30,000 but less than \$100,000 were also not affected; these cases are higher than the threshold for Simplified proceedings but not high enough for MSP. Using a sample of cases both before and after the policy change we are able to test the effect of the policy change in May 2005 on cycle time, while controlling for differences in case characteristics, region, industry, and judges' handling of cases.

Our sample of Settlement Part cases is selected from the OSHRC database. Our sample frame includes cases docketed between the years 2000 and 2010 that also settled without a hearing. The sample frame provides information appropriate for describing the elements composing the sample frame, i.e. cases that successfully settled, not those that did not settle and were reassigned for hearings.

We selected 1245 cases for analysis based on a stratified random selection method. Our final sample size for analysis is 1245 cases; 612 cases before the policy change and 630 cases after the policy change. The cycle time average is 186.7 days for cases in our sample. Yet, the data also show much dispersion around the mean. There is subset of outlier cases that take more than 3 years to resolve. There are also many cases that take less than 60 days to resolve that do not show any activity associated with Mandatory Settlement Part; these cases appear to resolve on their own. Both subsets somewhat distort the average for typical cases.

Table B-1 shows four different ordinary least squares (OLS) regression models. The dependent variable, our outcome of interest, is the same across all four models- the total number of days (cycle time). The independent variables for the models appear in the left hand column in the table. These are our predictor variables

Table B-1. Regression Analysis Using Cycle Time as Dependent Variable

RESULTS OF OLS REGRESSION				
VARIABLES	(1)	(2)	(3)	(4)
Dependent variable: LOG(CYCLE TIME)				
Casesaffected	0.0827 (0.0651)	0.0710 (0.0663)	0.117 (0.0642)	0.0436 (0.0486)
Afterpolicy	0.0740* (0.0391)	0.0725* (0.0388)	0.00256* (0.0420)	0.0085* (0.0387)
casesXpol	-0.0489 (0.0895)	-0.0309 (0.0889)	-0.0814 (0.0887)	-0.0393 (0.0658)
Logpenalties		0.1871** (.00007)		0.2983** (.0008)
Anyrepeat		0.146*** (0.0533)		0.147*** (0.0562)
Anywillful		0.108** (0.0485)		0.082** (0.0462)
Numbitemscontested		0.00268* (0.00148)		0.00176 (0.00110)
Numbcitations		0.0459 (0.0324)		0.0370 (0.0240)
Numbevents				0.0308*** (0.00139)
Pleadsusp				0.355*** (0.0506)
conferover30				0.515*** (0.0529)
Yearcontrols			<i>significant</i>	<i>significant</i>
Judgecontrols			<i>significant</i>	<i>significant</i>
DOLregioncontrols			<i>significant</i>	<i>significant</i>
Constant	4.945*** (0.0274)	4.938*** (0.0533)	5.585*** (0.649)	4.395*** (0.485)
Observations	1,231	1,201	920	722
R-squared	0.004	0.124	0.290	0.510

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Interpretation of Results

We transformed the dependent variable (*cycle time*) into its logarithm form (*log_cycletime*), which is standard practice to achieve a normal distribution for this type of dependent variable. Because the dependent variable is in logarithm form we interpret the coefficients associated with each independent variable as a percentage change that variable has on cycle time. The higher the coefficient on the independent variable, the more substantive effect associated with the predictor. A positive coefficient means the association between the predictor and the outcome is positive; as one increases so does the other. A negative coefficient means that as the level of the predictor increases, the outcome decreases. The level of statistical significance associated with each predictor is also important. In the results table statistical significance of each predictor is given by the standard errors that appear in parentheses below the coefficient. A significance level of .05 is associated with a confidence level of 95%, which means there is about a 5 percent probability that our results are due to chance. We focus only on coefficients that have a significance of .10 or better.

The names for each independent variable (predictors) are listed in the left-most column of the table and their coefficients appear in each row. The coefficients tell us whether the variable has any substantive effect on the outcome and also whether there is sufficient evidence that the results are not due to chance. The variable *casesaffected* is a dummy variable coded 1 for all cases in the treatment group. The variable *afterpolicy* is a dummy variable coded 1 if the case was assigned to a settlement judge after the policy change, May 5, 2005. The variable *afterpolicy* is the key variable for determining the effect of the policy change on cycle time. This variable is an interaction created by multiplying the values on the variables *casesaffected* and *afterpolicy*. The result is a value of 1 if cases are both in the treatment group and also assigned to the settlement judge after the policy change.

The coefficient on *afterpolicy* is the key result for determining whether the policy change by itself increased or decreased the average cycle time for cases. In the results table we see that the coefficient is neither substantively nor statistically significant, implying no effect on cycle time. Note that in this model we do not consider the effect of case characteristics or other factors that may be driving changes in cycle time. The R^2 at the bottom of the column is small ($R^2 = .004$). A small R^2 suggests there are many other factors that may be explaining variations in cycle time that are not accounted for in the equation.

In Model 2 (second column in the table) we focus on the effect of penalty amounts and OSHA violation types on cycle times. The variable *logpenalties* is the total amount of contested penalties in logarithm form. Since both the dependent variable and independent variable are logged, we interpret the effect as a proportion. A proportional change in the dependent variable is associated with a proportional change in the independent variable. In the results table we see that a one percent increase in penalties contested is estimated to result in a .1871 percent increase in cycle time.

The variable *anyrepeat* is coded 1 if the case has any violations characterized as “repeat” by OSHA. The coefficient indicates that repeat violations increase cycle time by about 14.6 percent, on average, and holding other factors constant. Putting this in perspective, the average cycle time increases about 27 days (from 186.7 to 214 days). The variable *anywillful* is coded 1 if the case has any violations characterized as “willful” by OSHA. “Willful” violations increase cycle time by about 10.8 percent or 19 days. Each additional item contested is associated with a modest .2 percent increase in cycle time. Note that the R^2 increases to .124 in Model 2, suggesting that adding case characteristics slightly improves the fit of the model.

Variations by Years, Judge Practices, and Department of Labor Regions

In Model 3 (column 3) we focus on effects associated with different years, judges, and Department of Labor regions. By adding dummy variables for each year we tap into unobserved effects associated with years, such as changes in judge case load, how cases are processed, other rule changes, and changes in OSHA policies. According to the yearly reports OSHA changes in policy are likely to affect the number and types of cases that are contested and adjudicated by OSHRC judges. By extension, OSHA policy changes may also affect OSHRC case cycle times. Adding controls for individual years at least partially taps into this effect.

Cycle Times Vary with Individual Judges’ Practices

In Model 3 we also control for the twenty different judge codes that appear in the sample. Results for individual effects associated with judges are not presented in the table. However, the values on these coefficients range from -0.12 to +0.21 for judges, suggesting that individual practices decrease cycle time by as much as 12 percent or increase cycle time by up to 21%, all else equal.

We are not surprised at this result given that individual judges use different techniques in their attempts to settle cases. Some judges promote settlement through mediation techniques such as role playing and expanding the pie. Others stated in interviews that they were uncomfortable with the mandatory settlement process and declined to engage in shuttle diplomacy.

These variations in the judges’ practices are evident from the data. For example, the data suggest significant differences across judges for the completion of pleadings. Some judges require parties to file complaints and answers on time and are unlikely to grant extensions. Other judges liberally grant extensions. The records also suggest that some judges suspend pleading requirements, which we assume occurs if the parties are negotiating settlement in earnest. We also see patterns and differences in the timing for settlement conferences. In some cases the settlement conference is scheduled within a day or two of case assignment. Yet we also see conferences scheduled as far out as ninety days from the date of assignment. The practice of scheduling a settlement conference appears to vary significantly by judge. As another example, both the timing (using the

assignment date as a baseline) and the extent of discovery (using the event file and counting discovery-related events) vary considerably by judge.

Department of Labor Regions Vary

Model 3 also tests for differences in effects associated with DOL regions. There are eleven DOL regions in our sample. Since DOL solicitors are assigned to DOL regions, this set of dummy variables picks up on unobserved heterogeneity associated with regional DOL policies. The variables are also likely to tap into some of the variance in solicitors' practices and solicitors' willingness to settle. Coefficients for individual regions range from -0.02 and +0.12, indicating cycle time decreases by eight percent or increases up to 12 percent depending on the DOL. The individual coefficient for DOL region 3 is associated with the twelve percent increase in cycle time.

Policy Change, Penalties, Penalty Types, Numbers and Types Citations

Model 4 includes the main variables of interest (the policy change, penalties, types of penalties, numbers and types of citations) and the controls for years, judges, and DOL regions controls from the previous equation. In model 4 we also consider the effects of associated with specific cases practices. Results indicate statistically significant effects for coefficients on the variables *logpenalties*, *anywillful*, and *anyrepeat*. A one percent increase in total penalties contested is estimated to result in a .298 percent increase in cycle time. Repeat violations increase cycle time by about 15 percent, while willful violations increase cycle time by about 11 percent, all else equal.

We also consider the effects of three different practices for which we find variation in the data. OSHRC's previous database is event driven. After merging the events file (over 628,000 records) with the file holding the main information for each case (about 39,000 records) we observed a wide range in the number of events associated cases. There are approximately 500 types of events in the database that can be recorded for cases but only about 45 event types appear to be used as frequent case notations. These notations record assignment dates, motions, orders, the filing of pleadings, stays, remands, and other events associated with cases. The average number of events per case is 17 for observations in our sample, but the range of events goes from 1 to 235. As expected, more events per case are associated with longer cycle times. However, the magnitude of the effect is smaller than expected. Each event is associated with an increase in cycle time of about 3 percent.

Using the events records we also coded a variable to indicate whether suspended pleadings prolonged case settlement. *Plead susp* is coded 1 if the complaint or response was suspended or delayed. Cases were coded 1 if the pleading was either suspended by motion or order, or if the pleading was more than 30 days past the due date according to the commission rules. The effects are substantively and statistically significant. Delays in pleadings increase cycle time by about 35 percent.

Finally, we consider the effect of conference call scheduling. According to the judges we interviewed, the initial conference call is an important milestone for cases in MSP. The variable *conferover30* is coded 1 if the initial settlement conference call is more than 30 days after the case is assigned to the settlement judge. When conference calls are more than 30 days out, the cycle time increases by about 51 percent, all else equal. Comparing the R^2 at the bottom of the model we see that the more fully specified model noticeably improves the fit. The R^2 of .51 is high by most research standards and suggests the model predicts about 51 percent of the variation in the dependent variable.

Summary of Findings

We summarize the key findings from this analysis below:

- Average cycle time is one of the agency's performance indicators. The approximate average cycle time for cases assigned to Mandatory Settlement Part is approximately 187 days. Yet, the data also show much dispersion around the mean. There is subset of outlier cases that take more than 3 years to resolve. These cases distort the average for typical cases. We believe the agency can significantly improve mean cycle time for MSP cases by flagging cases at some interval, for example at 180 days out, to reevaluate their potential for settling these cases.
- The actual percent of cases that resolve on their own versus those that those that settle because of MSP procedures is difficult to decipher from the data. The data show a subset of cases assigned to MSP that resolve within 60 days without MSP related activity. The agency may want to "count" this subset of cases differently from the more typical cases addressed in MSP.
- The 2005 policy change lowering the threshold for MSP case eligibility from \$200,000 to \$100,000 did not by itself reduce or increase the average amount of time it takes to resolve cases. Instead, the entire system was affected by changes outside of OSHRC's control, specifically, increases in ALJ caseloads and the increases in case complexity reflected after 2005 reported in the previous section.
- A one percent increase in the total amount of penalties contested is estimated to increase the time it takes to resolve cases between .19 percent and .30 percent (see models 2 and 4). The coefficients equate to increases of less than one percent, implying marginal increases in total penalties add less than a full day to the life of a case.
- Violations considered "repeat" add about 15 percent to case resolution times (see models 2 and 4).
- Violations considered "willful" add between 8 percent and 11 percent to case resolution times (see models 2 and 4).

- Regression results suggest that the types of violations are more important than penalty amounts in estimating the time it takes to resolve cases.
- The number of items and citations associated with a case do not meaningfully impact case resolution times.
- Case management activities have various effects on the time it takes to resolve cases. More case activity in the form of scheduling events, motions, and orders have a limited effect, adding only about 3 percent to the average time it takes to resolve cases. However, when pleadings are suspended, the time to resolve a case increases by about percent. Similarly, when the initial settlement conference call is delayed more than 30 days, the life of a case extends by as much as 52 percent.
- The management of a case, including the time at which a judge schedules conferences and other matters, is as important to reducing cycle times as other factors. The agency may wish to flag cases that do not reach certain milestones, including the deadlines specified in the Rules of Procedure. It may be useful to differentiate case processing delays from judge-granted extensions and stays to isolate the reason for longer than expected cycle times. It may be useful to count case cycle time with multiple metrics, not just from the date of assignment to the settlement judge. For example, a count from the date a case arrives at OSHRC and is docketed would isolate cases backlogged in the earliest period, while a count of days in discovery would help in determining both the efficiency and efficacy of discovery procedures.
- Some administrative law judges are more effective than others in achieving quicker resolutions. Specific practices appear to expedite cases by as much as 12 percent or add as much as 21 percent to the life of a case. This finding suggests that improvements in average cycle times are possible if judges are encouraged to share best practices.
- Cycle times vary substantively and significantly by DOL region. We believe these differences may be attributable to differences in industry, at least in part. (Different industries have a higher presence in some areas of the country). The agency might consider whether it is feasible for some judges to “specialize” in facilitating resolution of cases involving certain industries, and whether to assign cases to judges based on their knowledge of relevant industry practices.

What factors predict cases that will fail to settle in Settlement Part?

How can we enhance the efficiency of Settlement Part? One way is to improve the selection and referral of appropriate cases. The present system refers all cases based on a monetary jurisdictional threshold tied to the dollar amount of penalties, originally \$200,000 and then in 2005 reduced to \$100,000, increasing the number of cases eligible for Settlement Part. However, there may be measurable case characteristics that help us predict whether a given case has a higher probability of settling or failing to settle in Settlement Part. To investigate this question, we conducted a second multivariate analysis reflected in Table B-2 below, the dependent variable for which is the event failure to settle while assigned to MSP. A probit analysis is appropriate when trying to predict a binary outcomes.

Table B-2 Dependent Variable Failure to Settle in MSP

EQUATION	VARIABLES	(1) nosettle	(2) nosettle
	penalties		0.000744 (0.0008)
	anywillful	1.196*** (0.441)	1.073*** (0.381)
	anyrepeat	0.0641 (0.356)	0.0878 (0.359)
	accident	0.446* (0.325)	0.557 (0.353)
	referral	0.326 (0.390)	0.213 (0.427)
	complaint	1.625*** (0.377)	1.612*** (0.353)
	union	0.601* (0.342)	0.700** (0.350)
	delays	0.679** (0.343)	0.742** (0.344)
	Constant	-0.989** (0.456)	-0.884* (0.476)
	Observations	89	84

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Data for Analysis

We derive the data for analysis from two sources, the OSHRC database and OSHA citation records. We also consulted with OSHRC personnel and checked the data against various reports and records they supplied. The observations in the model include cases that were assigned to MSP between the years 2000 and 2011 that *failed to settle while in MSP*. There are 89 observations in model 1 and 84 in model 2. The number of observations includes cases in the data set for which all of the response and predictor variables are *not missing*.

Outcome Variable

The outcome/dependent variable, *nosettle*, for both models is a binary variable valued as one if the case qualified for MSP, was assigned to a settlement judge but after a period of time was reassigned to a different judge for trial. We consider these cases to reflect a group not successful using settlement part procedures. Cases that qualified for MSP, assigned to an SP judge and settled using MSP procedures are coded as zero.

Predictors

The first model includes predictors for types of violations contested and the motivation for the underlying inspection at OSHA. In this first model we are also interested in the possible effects of union involvement and delays on case proceedings while the case is assigned to MSP. A second model adds one additional predictor, penalty amounts.

We use the violation types associated with each case that are contained in the OSHRC records. We code specifically for cases that include *willful* and *repeat* citations. The value for each of these variables is set at one, if so indicated in the record, and zero otherwise. The value for *penalties* is the total dollar amount of penalties contested. We use the amount found in OSHRC's citations file to code this variable.

By matching docket numbers and inspection numbers from separate OSHRC files we were able to pull records from OSHA associated with each contested case. Using OSHA inspection numbers, we coded three variables from OSHA records: *accident*, *referral*, and *complaint*. These variables reflect the different reasons for the underlying OSHA workplace inspection. OSHA inspections arise as a matter of routine, sometimes announced and sometimes unannounced. However, inspections are also motivated by reports of a workplace accident, by referrals of another agency, and based on complaints filed by different parties. Our models tests whether the reason for the underlying inspection affects the probability of SP failure. The variables *accident*, *referral*, and *complaint* are each valued at one, if so indicated in the OSHA inspection record, and zero otherwise. OSHA inspection records also include information on whether the business inspected is unionized.

We include the variable *union* in our analysis to see its impact on MSP program

outcomes. *Union* is valued at one if the business inspected is unionized, and zero otherwise. We also include one predictor that taps into case management procedures. The variable *delays* is valued at one if any of the following conditions were met: pleadings were suspended, there is a continuance associated with the case, there is an order granting an extension of time for filing. We coded this variable from OSHRC's events file. The validity of the predictor was further checked against case cycle times; correlations between higher cycle time (calculated the date associated with final resolution of the case - assignment date) and the values associated with *delays* provided evidence of convergent validity.

Interpretations

Models 1 and 2 (columns 1 and 2) in the table show results of a probit regression analysis. A probit analysis predicts the likelihood that a case fails to settle after having been assigned to the Settlement Part Program. Results are generally consistent in both models, we rely on the second, more inclusive model (column 2) for interpretations.

Interpretation of the coefficients in a regression is not as straightforward as the interpretation of coefficients in ordinary least squares (OLS). An increase in the probability attributed to a one unit increase in a given predictor is dependent both on the value of the other predictors and the starting value of the given predictors. For example if we hold *anyrepeat* and *anywillful* constant at zero, a one unit increase in penalties from one dollar to two dollars has a different effect than a one unit increase from three dollars to four dollars. Note that the probabilities do not change by a common factor. Also, the effects of a one unit increase in a predictor is different if we hold other predictors at their respective means than if we hold them at zero.

In general, all of the coefficients are positive, implying a positive association between each predictor and the outcome variable. That is, the presence of any of these factors increases the probability that a case will not settle in MSP. We focus our interpretations on coefficients that are statistically significant at least the .05 level. The standard errors associated with the test of statistical significance, appear in parentheses below individual regression coefficients.

Four variables stand out as having statistically significant effects: *anywillful*, *complaints*, *union*, and *delays*. The coefficient for *anywillful* is 1.073; the coefficient for *complaints* is 1.625; the coefficient for *union* is .601; the coefficient for *delays* is .679. The presence of any of these factors individually increases the predicted probability that MSP procedures will not be effective and the case will be reassigned for trial.

By running additional tests we can predict the mean predicted probability of MSP failure under specific conditions. For each condition in the Table B-3 below, the other predictors are held at their means.

Table B-3. Probabilities That Settlement and Failure to Settle in MSP

Condition	Probability of Settling while in MSP (Nosettle=0)	Probability of Failing to Settle while in MSP (Nosettle=1)
Willful Violation	28%	69%
Accident	24%	75%
Complaint	11%	88%
Union	26%	73%
Delays	26%	76%

Summary and Findings

In drawing conclusions about factors that lead to settlement failures, it is important to keep in mind that failing to settle a case while in MSP is not the same as failing to settle altogether. Some cases enter Mandatory Settlement Part but fail to settle while assigned to MSP. These cases are reassigned to a trial judge and may eventually settle; however, they do not settle while in MSP, or apparently by using alternative dispute resolution techniques currently associated with MSP.

The key findings and recommendations that stem from this analysis are as follows:

- The most important case characteristic associated with settlement failure is the type of violation. Specifically, cases that have *willful violations* increase the probability of settlement failure by sixty-nine percent.
- Cases that involve workplace accidents increase the probability of settlement failure by 75 percent.
- Repeat violations do not appear to significantly affect the probability of settlement failure while in MSP.
- When the OSHA violation involves a unionized business, the probability of settlement failure increases about seventy-three percent. Unionized businesses are much more likely to be cited in the first place, likely because they are larger businesses, so we cannot conclude from this result that union involvement as a party in the case actually increases the probability of settlement failure.
- Case management practices can increase the probability of settlement failure, and importantly settlement success. When cases are delayed as a result of suspended pleadings and orders granting extensions, the probability of settlement failure increases by about 76%.

It is of course likely that these factors are both interrelated and cumulative. This suggests that cases entailing willful violations, workplace accidents, large, unionized employers, and issues that require suspended pleadings or extensions may be more appropriate for

Conventional than Settlement Part proceedings. Mandatory Settlement Part is a program that is part of a larger dispute system design at the agency. It is possible that improving selection of appropriate cases for MSP will improve the efficiency of the system as a whole.

Predicting Future Compliance

There may be additional advantages associated with Mandatory Settlement Part. In this section we describe additional analysis that we conducted to determine whether MSP cases have fewer subsequent OSHA citations compared to Conventional cases.

Research question: Does MSP facilitate future compliance?

Data for Analysis

We use the universe of cases associated with the surveys as our starting point. The sample includes 144 cases that settled in MSP since February 2011 and 134 cases that resolved in Conventional proceedings since February 2011. We used records from OSHRC database to obtain docket numbers, OSHA inspection numbers, and penalty information associated with each case. We used OSHA records to retrieve information on the numbers and types of subsequent violations. The resulting number of observations includes cases in the dataset for which all of the response and predictor variables are *not missing*.

Outcome Variables

We use five different binary measures of subsequent violations: subsequent violations of any type; subsequent violations of the same type (matching to most recent types at OSHRC); subsequent willful violations; subsequent serious violations; and, subsequent repeat violations. Each outcomes variable is valued at one for the presence of *any relevant violation*, zero otherwise. To be clear, if a case has several subsequent violations the value is still one. We code this variable from OSHA inspection records.

The variable *any_subseq_viol* is valued at one if the business associated with the OSHRC case was cited for any OSHA violation subsequent to having entered MSP or Conventional, and zero otherwise.

The variable *any_similar_subseq* is valued at one if the business associated with the OSHRC case was cited for any OSHA violation subsequent to having entered MSP or Conventional, and zero otherwise.

The variable *any_subseq_willful* is valued at one if the business associated with the OSHRC case was cited for any OSHA violation subsequent to having entered MSP or Conventional, and zero otherwise.

The variable *any_subseq_serious* is valued at one if the business associated with the

OSHRC case was cited for any OSHA violation subsequent to having entered MSP or Conventional, and zero otherwise.

The variable *any_subseq_repeat* is valued at one if the business associated with the OSHRC case was cited for any OSHA violation subsequent to having entered MSP or Conventional, and zero otherwise.

Predictors

We include a variable to indicate whether the case was assigned to Mandatory Settlement or to Conventional. The value for the variable *assignedMSP* is one if the case was assigned to Mandatory Settlement Part and zero if it was assigned to Conventional Proceedings.

The value for *penalties* is the total dollar amount of penalties contested. We use the amount found in OSHRC's citations file to code this variable.

We include the variable *union* in our analysis to as a control, more than a predictor. It is also a rough indicator for business size; large businesses are more likely to be unionized. We code this variable from OSHA records. *Union* is valued at one if the business inspected is unionized, and zero otherwise.

The variable *anywillful* is valued at one for cases that include any contested violations categorized by OSHA as willful, zero otherwise. The variable *anyrepeat* is valued at one for cases that include any repeat violations, zero otherwise.

To the extent we were able to match OSHRC docket numbers with OSHA inspection numbers from separate OSHRC files we were also able to pull records from OSHA associated with each contested case. Using OSHA inspection numbers, we coded three variables from OSHA records: *accident*, *referral*, and *complaint*. These variables reflect the different reasons for the underlying OSHA workplace inspection. Our models tests whether the reason for the underlying inspection affects the probability of SP failure. The variables *accident*, *referral*, and *complaint* are each valued at one, if so indicated in the OSHA inspection record, and zero otherwise. OSHA inspection records also include information on whether the business inspected is unionized.

Interpretations

We want to know if MSP or other factors affect future compliance with OSHA workplace safety rules. To be sure, cases assigned to MSP and Conventional cases not assigned to MSP can both resolve by mutual agreement of the parties. However, there are meaningful differences in procedure for the two tracks. Perhaps most importantly, in MSP the rules call for early intervention by the settlement judge. In addition, MSP cases are also more likely to resolve with the assistance of the judge, rather than by the parties alone. Thus, interpretations go more to the efficacy of MSP and the role/ importance of OSHRC's administrative law judge in facilitating compliance than they do about the effect of

settlement on future compliance.

We use probit analyses to predict the likelihood that subsequent OSHA violations occur after OSHRC proceedings. We present the main results in tables B-4 through B-6. Table B4 includes result of five different equations (models 1 through 5 -columns also labeled 1-5). Models 1-5 are parsimonious, including only three predictors: the designation of the case (MSP or conventional), total penalty amounts and union presence.

Table B-4: RESULTS OF PROBIT PREDICTING FUTURE COMPLIANCE

VARIABLES	(1)	(2)	(3)	(4)	(5)
	Any subseq viol	Any similar subseq	Any subseq willful	Any subseq serious	Any subseq repeat
assignedMSP	0.636** (0.283)	0.536* (0.299)	-8.51e-07 (6.96e-07)	0.273 (0.303)	0.288 (0.344)
penalties	-1.24e-06* (6.92e-07)	-1.13e-06 (7.10e-07)	0.312 (0.626)	-9.23e07 (6.92e-07)	-8.27e-07 (6.49-07)
union	0.477* (0.260)	0.167 (0.277)	-1.953*** (0.396)	0.00273 (0.00293)	0.00532 (0.00341)
Constant	-1.020*** (0.275)	-1.147*** (0.294)	-1.127*** (0.234)	-1.085*** (0.288)	-1.088** (0.233)
Observations	116	116	98	116	111
Wald chi2(3)	9.29	4.95	1.99	2.22	1,78
Prob > chi2	.025	.17	.37	.52	.61

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Interpretations

Focusing on Table B-4, model 1 in column 1, we see there is a positive association between assignment to MSP and the likelihood of seeing at least one subsequent violation of any type that is statistically significant ($P<.05$). There is a negative association between the total amount of contested penalties and the likelihood of seeing a subsequent violation that is statistically significant ($P<.10$). There is a positive association between the presence of a union and the likelihood of seeing a subsequent violation that is statistically significant ($P<.10$). The standard errors associated with the test of statistical significance, which give us confidence that these results are not due to chance appear in parentheses below individual regression coefficients.

On the surface, it does not appear that MSP has a positive impact on future compliance. However, as discussed more thoroughly in the previous section, interpretation of the coefficients in a binary, non-linear model are not straightforward. The probabilities do not change by a common factor and the effects of a one unit increase in a predictor is different if we hold other predictors at their respective means than if we hold them at zero. To understand the effects more specifically, we look to calculated predicted probabilities for the outcome variable under specific conditions.

Table B-5. Probabilities of Subsequent OSHA Citations

Condition	Probability of no subsequent violations	Probability of any subsequent violations
Cases not assigned to MSP (assignmentMSP=0)	17%	68%
Cases assigned to MSP (assignmentMSP=1)	37%	64%
<i>* Other variables are held at their means for all predictions.</i>		

The table of predicted probabilities suggests there actually is a marginal, yet positive effect of MSP on future compliance. More specifically, the probability that a party to an OSHRC proceeding **will not be cited for** any type of future OSHA violation (within a year from the time a case is assigned to an OSHRC judge) is about 20% more (from .17 to .37) for cases assigned to MSP compared to Conventional cases. The difference between the groups is not as stark for probabilities associated with actually being cited for any subsequent violation. Holding other variables there is a 68% and 64% probability for conventional and MSP, respectively.

We also examined the effect of penalties on future compliance related to cases in Mandatory Settlement Part. As the sign of the coefficient in the preceding table suggests (Table B-4, column 1), the relationship between penalties and future citations is negative, suggesting that penalties may in fact be a deterrent to future violations. Larger penalty amounts are associated with lower probability of future citations.

In addition we can see from the table below (B-6) that there appears to be the highest impact on deterrence when penalty amounts are highest and cases are assigned to MSP. The predictions in B-6 reflect cases **below \$100,000** that are also assigned to MSP. These cases have *willful* and/or *repeat* violations and are thus assigned to MSP even though they are below the threshold of \$100,000.

Table B-6: The Effect of Penalty Amounts on the Probability of Subsequent OSHA Citations in Mandatory Settlement Part

Total Contested Penalties	Probability of no subsequent violations	Probability of any subsequent violations
\$10,000	58%	41%
\$25,000	61%	38%
\$50,000	61%	39%
\$75,000	62%	38%
\$99,999	69%	37%
* * <i>Other variables held at their means</i>		
** <i>Cases above \$99,999 are all assigned to MSP. Cases below \$100,000 can be assigned to MSP by virtue of violations types</i>		

Additional Models

Focusing our attention on Table B-7, column1, we see that comparable results are obtained when we add predictors to our equations.

Table B-7 Additional Probit Results Predicting Future Compliance

VARIABLES	(6) Any subseq viol	(7) Any similar subseq
assignedMSP	0.471 (0.309)	0.486 (0.321)
penalties	-1.71e-06** (8.26e-07)	-8.35e-07 (8.14e-07)
union	0.441 (0.268)	0.175 (0.283)
referral	0.167 (0.402)	0.123 (0.410)
accident	0.550 (0.546)	-0.459 (0.649)
complaint	0.819* (0.463)	0.418 (0.488)
Constant	-0.988*** (0.277)	-1.158*** (0.299)
Observations	116	116
Wald chi2(6)	14.79	5.03
Prob > chi2	.02	.53

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Although the significance of the variable *assignmentMSP* in table B-7 is no longer statistically significant at .05 level, overall effects are fairly consistent with those we found in the more parsimonious models. In Table B-7, column 1 we see that the variable *penalties* continues to be a statistically significant predictor, although not substantively meaningful. We also see that one additional predictor, *complaint*, takes on statistical significance at the .10 level. The sign on the coefficient is negative. Thus, if the OSHA inspection associated with the case was initiated because of a complaint by another party, the business is less likely to be cited for subsequent violations.

Summary and Findings

The key findings and recommendations that stem from this analysis are as follows:

- Assignment to Mandatory Settlement Part appears to have a small yet positive effect on future compliance. Comparing MSP cases to Conventional cases, parties from MSP cases are about 20 percent less likely to receive subsequent violations of any type.
- Penalties are a deterrent. Larger penalty amounts are associated with a lower probability of future citations. In addition assignment to MSP has the highest impact when penalty amounts are highest and cases. For cases near the \$100,000 threshold that are also assigned to MSP, there is about a 69% probability that the case settled will not receive OSHA subsequent violations.
- Businesses are less likely to be cited for subsequent violations if the OSHA inspection associated with the case was initiated because of a complaint by another party. This finding suggests that the complaining party may have an important role in the success of OSHRC cases.

Appendix B-1: Technical Appendix- Ordinary Least Squares Regression Analysis

Case Selection

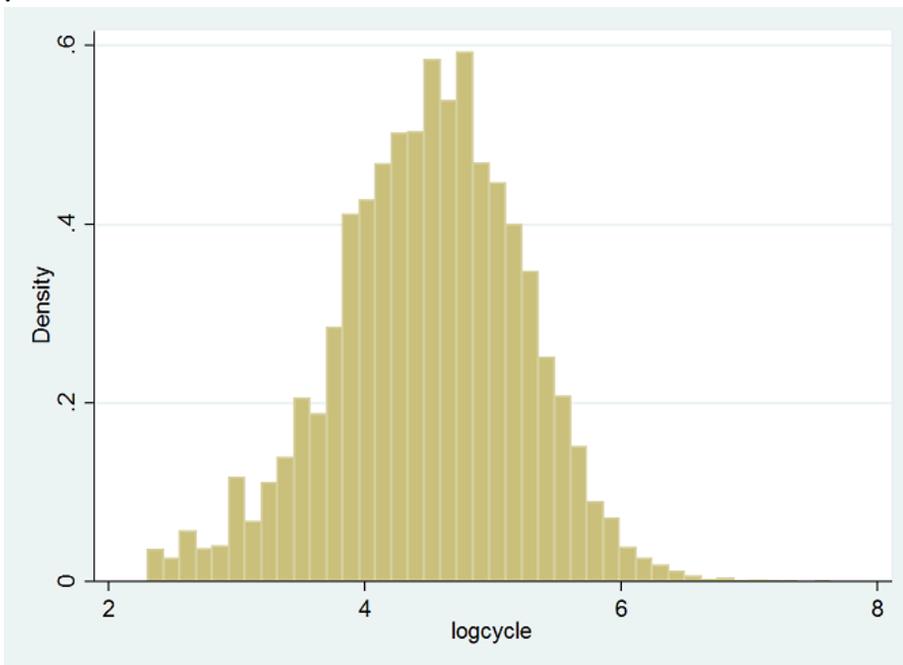
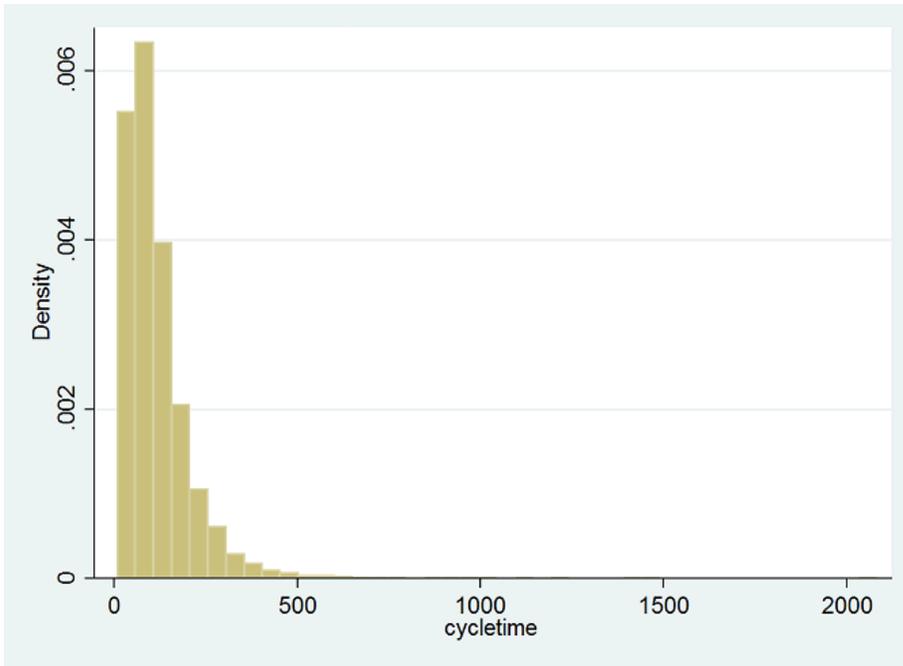
The records that OSHRC provided us included 6,733 cases before the policy change and 5,300 after the policy change. Because we want to describe most typical cases, we removed cases with cycle times less than 30 days and more than 365 days. We then merged records of case events to determine which of these cases were associated with hearings. Excluding cases with (verifiable) hearings we narrowed the case count to 4,542 cases before the policy change and 5,220 after the policy change. The total number of cases eligible for selection was further limited by some inconsistencies in the data and also by missing data.

Our aim was to select approximately 1000 cases from the cases eligible for selection. We determined the sample size based on two main considerations. The sample size had to be large enough to achieve statistical significance but small enough to check cases for data errors. We also wanted to ensure a sufficient sample of subgroups from each year and region. We divided the cases in the database according to two strata (year and OSHRC region) and then randomly chose cases before and after May 2005 (the date of the policy change). The stratified-random selection method ensures a sufficient sample of relevant subgroups while guarding against an unrepresentative sample.

Our final sample size for analysis is 1,245 cases; 612 cases before the policy change and 630 cases after the policy change.

Transformation of Dependent Variable

The dependent variable cycle time was transformed into logarithm form to achieve a normal distribution. The graphs below show the distribution before and after the log transformation.



OLS Regression Equation

The estimate equation for the OLS equations, with standard errors in parentheses, is

$$\begin{aligned} \log(\text{cycletime}) = & 4.945 + .0827 \text{ casesaffected} + .074 \text{ afterpolicy} - .0489 \\ & \text{casesaffected} * \text{afterpolicy} \\ & (.065) \qquad\qquad\qquad (.039) \qquad\qquad\qquad (.089) \end{aligned}$$

The coefficient for *casesaffected* * *afterpolicy* reflects the change in cycle time specifically associated with the policy change in May 2005, lowering the threshold from \$200,000 to \$100,000 for cases eligible for MSP. Specifically,

$$\hat{\delta} = -.0489 \quad (t = -.55)$$

Coding for Variables Treated as Treatment and Control Groups

The variable *casesaffected* is a dummy variable coded 1 for all cases in the treatment group. The variable *afterpolicy* is a dummy variable coded 1 if the case was assigned to a settlement judge after the policy change, May 5, 2005.

Coding for the Interactive Effect

The variable *afterpolicy* is the key variable for determining the effect of the policy change on cycle time. This variable is an interaction created by multiplying the values on the variables *casesaffected* and *afterpolicy*. The result is a value of 1 if cases are both in the treatment group and also assigned to the settlement judge after the policy change. The coefficient on *afterpolicy* is the key result in this equation; it is neither substantively nor statistically significant, implying the policy change by itself neither increased nor decreased the average cycle time for cases. Note that in this model we do not consider the effect of case characteristics or other factors that may be driving any changes in cycle time.

Notes Associated with Model: Controls for Years, Judges, and DOL Regions

To preserve space individual coefficients on each of the ten years in the sample is not shown in the table. Statistical tests indicate that individual coefficients for the years 2001 and 2010 are both significant. The year 2001 is associated with a 2 percent increase in cycle time ($p < .05$) and the year 2008 is associated with a 4.8 percent increase in cycle time ($p < .01$).

We used a Wald test to test the joint significance of the subset of coefficients for years. The test shows that as a group the years are significant; there are some unobserved effects associated with years that vary cycle time.

Wald Test of Joint Significance for Years:

Wald Test of Joint Significance for Years
F(10, 1188) = 2.17
Prob > F = 0.0175

Model 3 also controls for effects associated with judges. We use the field *judge key* in the OSHRC files. In running the regression we found that not all individual coefficients associated with judges are significant. However, results of a Wald test indicate joint significance of the group.

Wald Test of Joint Significance for Judges
F(16, 1188) = 3.10
Prob > F = 0.0000

A Wald test indicates joint significance of the group of variables that control for different DOL regions

Wald Test of Joint Significance for DOL Regions
F(11, 1188) = 2.41
Prob > F = 0.0059

DOL Regions and Industry Effects

We believe the controls for DOL regions also tap into industry effects. We tried the equation in model 3 using select industry indicators as an alternative to DOL region codes, under the assumption that practices (and perhaps violations) may be similar within industries and that some industries may be associated smaller or larger cycle times. We were able to find SIC codes for about 200 cases in our sample. However the effects, considered as a group, were very similar substantively and significantly to the effects produced by adding DOL regions. Since there were many more SIC codes than DOL regions and since adding SIC codes considerably reduces the number of observations in the results, we decided to use only DOL regions. We suspect that DOL region codes are in part also tapping into industry effects since industries are associated with different regions of the country as well as DOL jurisdictions

Appendix B-2: Technical Appendix- Probit Analysis: Factors Predicting Cases that will Fail to Settle in Settlement Part

Tests of Model Fit.

The Log likelihood for the fitted model= -37.611005. This statistic is used in the Likelihood ratio (LR) chi-square test of whether all predictors' regression coefficients in the model are simultaneously zero. The LR chi2 (8)=30.50. This is the likelihood ratio (LR) Chi-square test that at least one of the predictor regression coefficients is not equal to zero. The number in parenthesis (8) indicates degrees of freedom of the Chi-Square distribution used to test the LR Chi-Square statistic and is defined by the number of predictors in the model. Prob>chi2 for the model is .0002. The probability of getting an LR test statistic as extreme as, or more so, than the observed statistic under the null hypothesis. The null hypothesis is that all the regression coefficients are simultaneously equal to zero. In other words, this is the probability of obtaining this chi-squared (30.50) or one more extreme, if there is no effect of the predictor variables. The p value is compared to a specified output level of .05. With the very small p value of .0002 we conclude that at least one of the regression coefficients in the model is not equal to zero.

Probit Regression Equation

The predicted probability that a case assigned to SP does not settle in SP is:

$$F(-0.884 + \text{penalties} * .00074 + \text{anyrepeat} * 1.073 + \text{anywillful} * .0878 + \text{accident} * .557 + \text{referral} * .213 + \text{complaint} * 1.612 + \text{union} * .700 + \text{delays} * .742.)$$

R-Square

Probit regression does not have an equivalent of the R-Square that is found in ordinary least squares regression. The McFadden pseudo R-Squared is a commonly used alternative for a probit mode. The Pseudo R-Square for the model is .349, indicating that our group of predictor variables is associated with approximately 35% of the variation in our outcome variable.

Appendix B-3: Technical Appendix- Probit Predicting the Likelihood of Subsequent OSHA Violations for MSP and Conventional Cases

Case Selection Issues

We were limited in the number of cases for which we could attempt to retrieve OSHA inspection numbers and OSHA histories. Not all docket numbers were available for all cases supplied by OSHRC. Without docket numbers there is no way to search for OSHA inspection numbers and to retrieve OSHA inspection records. We were also not able to find all the missing docket numbers on our own with the MS Access files supplied by OSHRC back in 2011 as those files did not include all information on the most recent OSHRC cases. OSHRC's conversion from MS Access based system of records to ProLaw in recent months also complicated efforts. With much assistance from OSHRC personnel, researchers did their best to obtain the missing data. However, the data for this analysis is still subject to limitations

Tests of Model Fit

Preliminary tests indicate confidence in two models above others, both of which predict the likelihood of **any subsequent violations**. Specifically, the Wald chi2 tests and associated probability for table X column 1 and table X column 1 tell us that these two models are statistically significant overall. This test approximately the LR test discussed in the previous section, with certain advantages. The test tells us whether the predictors in the model are simultaneously equal to zero. In models 2-5 in table X and model 2 in table X we are not able to reject the null hypothesis. Although we can't say with confidence that these models fit significantly better than models with no predictors, we do not discount them altogether; correlation tests and other statistical tests provide evidence of relationships between the predictors and the outcome variables in these models in the same directions indicated with the signs on the coefficients. However, given results of the Wald tests and we will focus our interpretations on the first columns in each table.²²

Predicted Probabilities of Observing Subsequent Violations for MSP and Conventional Cases

For table B-5 predictions are obtained using the commands **prvalue** and **prchange** in Stata. All other variables are held at their means for the predictions. The probability of observing no subsequent violations is obtained by setting the variable **any_subseq_viol=0** in Stata. The probability of observing any subsequent violations is obtained by setting the variable **_subseq_viol = 1** in Stata. For cases not assigned to MSP we set the variable **assignmentMSP=0** in Stata. Cases assigned to MSP we set the variable **assignmentMSP = 1**.

We use a confidence level of 95 % for all predictions (p<.05).

²² Wald chi2-square and p-values for each model appear at the bottom of each column.

For predictions in table B-5 we examine only cases in Mandatory Settlement Part. We obtained predictions using commands *prvalue* and *prchange* in Stata and set the variable *assignmentMSP=1*.

We use a confidence level of 95 % for all predictions ($p < .05$).

Additional Tests

Additional tests associated with table B-6 and B-7 show that the predicted probabilities hold with a 95% level of confidence or better both with other variables held at their mean, and also when the variable *assignmentMSP* is set to a value of one.

Section C. Participants' Perceptions of OSHRC Programs: Summary of Survey Responses with Focus on Procedural and Distributive Justice

Introduction

OSHRC's mission is to provide *fair* and timely resolution of disputes relative to OSHA citations. In response to the question what do parties want from their system of justice, Professor Tyler, a leading procedural justice theorist and scholar, responds:

People's attitudes [about legal authorities and their decisions] are also important because, to the extent possible, legal decisions should be based on a consensus of the parties to the dispute about what is just. People should be able to willingly embrace the solutions reached in legal proceedings. They should want to accept those solutions. In other words, justice does not flow only from the interpretation of legal doctrines by legal scholars, judges, and/or philosophers, who tell people what is a just solution to their problems. It also develops from the concerns, needs, and values of the people who bring their problems to the legal system. In this sense, the parties to a dispute own the dispute and should be involved in its resolution. While the legal system and society more generally have legitimate interests in the interactions of citizens, those interests do not preclude concern about the values of the disputants.¹

In his review of procedural justice research, Professor Tyler also notes that disputants' concerns change as they actually deal with legal authorities. Their concerns shift from self-interest in the outcome or distributive justice toward issues of participation or voice, trustworthiness, respect, and neutrality, that is, toward relational concerns.²

Some of these concerns have framed aspects of the body of research on dispute resolution in courts. The leading Rand Institute of Civil Justice Study compared perceptions of justice in different court connected dispute resolution processes.³ Researchers found that disputants were more satisfied with aspects of procedural justice in non-binding arbitration and trials than they were in judicial settlement conferences. The judicial settlement conferences studied often did "not involve any direct participation at all for litigants; the attorneys typically meet with a judge in chambers and undertake an informal discussion of the possibilities for and advantages of settlement."⁴ Researchers contrasted this process with arbitration, pointing out that a judicial settlement conference usually focuses on possibilities for compromise, not the liability or merits of the case, and that judges are free to adopt any procedure for running the conference that they choose. See

¹ Tom. R. Tyler, *Citizen Discontent with Legal Procedures: A Social Science Perspective on Civil Procedure Reform*, 45 Amer. J. of Comp. Law 871, 875 (1997).

² *Id.* at 894.

³ E. Allan Lind, Robert J. MacCoun, Patricia A. Ebener, William L. F. Felstiner, Deborah R. Hensler, Judith Resnik, Tom R. Tyler, *The Perception of Justice: Tort Litigants' Views of Trial, Court-Annexed Arbitration, and Judicial Settlement Conferences*. Santa Monica, CA: The Rand Institute for Civil Justice (1989).

⁴ Lind, et al., at 13.

also, research conducted by The Federal Judicial Center on the use of ADR in district courts.⁵

This literature helped frame some of the questions on the external stakeholder mail surveys to participants in Settlement Part and Conventional proceedings. Mail surveys provide a means to assess participants' perceptions of fairness and to gauge levels of satisfaction with various aspects of OSHRC's programs.

Background Research

In addition to knowledge of academic literature regarding alternative dispute resolution (ADR) and more specifically court-annexed ADR, the research team analyzed OSHRC-specific information. Included were all related OSHRC regulations, information regarding Conventional Proceedings and the implementation of the Mandatory Settlement Part to improve outcomes for cases within Conventional. Researchers also reviewed relevant rule changes in the Federal Register, information published in the traditional press regarding OSHRC programs, information published on OSHRC's website, and information provided by OSHRC administrative personnel.

Other Preliminary Steps

IU submitted an application to the IU Institutional Review Board (IRB) seeking approval for the research under human subjects guidelines. Researchers received approval for the questionnaire design and protocol on September 30, 2011 (IRB 1107006384).

In compliance with the Paperwork Reduction Act of 1995, on November 1, 2011 OSHRC published a 60-day notice in the Federal Register (76 FR 67496) soliciting comment on the information collection associated with Settlement Part survey. On April 4, 2012 OSHRC published a 60-day notice in the Federal Register (77 FR 20442) soliciting comment on the information collection associated with the Conventional survey. The comment period ended for both notices with no comments were received. OSHRC applied and received subsequent approval from the Office of Management and Budget (OMB) for both surveys.

IU submitted an application for amendment of IRB approval consistent with changes recommended by the OMB. IRB approved amendments to the design and protocol on June 22, 2012 (IRB 1107006384- AMD).

Sampling Frames

The population frames include recent OSHRC program participants acting as any one of the following: Representative of Employer (non-attorney), Representative of Employer

⁵ E.g., Meierhoefer, Barbara S. (1990). *Court-Annexed Arbitration in Ten District Courts*. Federal Judicial Center.

(attorney), Solicitor of Dept. of Labor, Authorized Employee Representative (union), or Attorney for Authorized Employee Representative.

Sampling frames are slightly different for the two surveys: The Settlement Part mailing list includes all those who actively participated in Mandatory Settlement and Voluntary Settlement under 29 CFR 2200.120 between February 15, 2011 and February 14, 2012. Docket cases associated with this group have a proposed total penalty amount of at least \$100,000. The Conventional /Non SP mailing list includes all those who actively participated in Conventional proceedings between February 15, 2011 and February 14, 2012. Docket cases associated with this group have a proposed total penalty amount of at least \$50,000 but less than \$100,000.

The nature of the survey questions (about experiences) imposes some limitations on the sample frame.⁶ Previous program participants are not likely to accurately recall their experiences from several years ago but they are likely to recall more recent experiences. The sampling frame allows us to make assertions about recent participants in the individual programs, not all participants since the program was initiated. In addition, we can only safely generalize to the sample frame if the list provided to us is accurate.

Survey Design

Following the original research proposal, IU designed and implemented two mail surveys. The first mail survey targeted individuals that recently participated in OSHRC's Settlement Part Program. The second mail survey targeted individuals that recently participated in OSHRC's Conventional Proceedings. The two survey designs are nearly identical, with slight differences in language referencing the specific OSHRC program in which the respondent participated. Researchers designed the questions to reflect the theory and previous research on "justice." The heart of the surveys includes questions relevant to the participants' satisfaction with the outcomes and administration of OSHRC's processes. The various aspects of the process are assessed across two models of justice: distributive justice (satisfaction with outcomes) and procedural justice (satisfaction with the process and judge)⁷ The questionnaire also elicits background information, including the participants' role in case, past experiences with OSHRC proceedings, and the nature of the participants' most recent case. This background information is useful for examining satisfaction levels across categories of respondents.⁸ Researchers phrased and formatted the questions consistent with best practice methods.⁸

Survey Plan

⁶ To be representative of a population the sampling frame should include all or nearly all of the members of a population.

⁷ Lind, E. A., and T. R. Tyler. (1988). *The Social Psychology of Procedural Justice*. New York: Plenum Press.

⁸ Dillman, D., J. Smyth, and L.M. Christian. (2009). *Internet, Mail, and Mixed Mode Surveys. The Tailored Design Method*. 3rd edition. Hoboken, NJ: John Wiley & Sons.

IU's survey design and implementation plan have a basis in theory and research. The Dillman method (also referred to as the total design method or TDM) is a set of techniques derived from social exchange theory and is considered the state of the art for survey research. The logic of the method is basic: Survey recipients are most likely to respond if they expect that the perceived benefits of doing so will outweigh the perceived cost of responding. Accordingly, every element of the questionnaire design and the survey implementation method is intended to address the perceived cost/ benefit calculus of the respondent. For example, the questionnaire is designed so that it is easy to read, interesting, and take a minimum amount of time. The respondent should have trust in its use and be convinced that his or her response is valuable.

Researchers designed a system of multiple complimentary contacts consistent with the Dillman method.⁹

1. The initial mailing included a cover letter from OSHRC, a cover letter from IU, a brief questionnaire, and a prepaid envelope. Letters from OSHRC and IU communicated legitimacy and purpose. The OSHRC letter assured potential respondents that the agency engaged IU to conduct the study and urged the importance of a response. Previous research finds that government sponsorship improves response rates. IU designed OSHRC government stationery to include in the mailer. Researchers also incorporated the original signature of Debra Hall, (OSHRC Executive Director) on the letterhead. The letter from IU (on original letterhead) explained the goals of the study, promised our efforts to maintain confidentiality, and provided contact information of the co-PI's as well as contact information for the IU Human Subject office. The survey questionnaire was light blue in color (to contrast with other items). Researchers included a prepaid envelope to make responding as easy as possible.

2. Researchers mailed a follow up postcard 10 days after the initial mailing. The postcard served as a thank you to those who already responded and a gentle reminder to those who had not yet returned the survey. The postcard included the names of the co-PI's.

3. Researchers completed a "special contact" (phone or email), two weeks after postcard mailing. The Dillman (2009, 24) method calls for a different mode from mailing for this contact. Researchers were not able to contact all non-respondents at this stage because OSHRC could not provide complete contact information. However, every effort was made to obtain mail addresses to increase response

⁹ Dillman et al (2009) suggest a five-contact system that can be modified based on circumstances. We were somewhat constrained by the OMB requirements and by the description of the survey strategy described in the federal register. Specifically, the federal government requires minimal burden on individuals and small businesses. We would have preferred a separate prenotice letter explaining the nature and importance of the survey and inviting responses. A separate letter from IU and one from OSHRC accompanied the initial mailing.

rates. Replacement questionnaires were sent if respondents said they misplaced the original survey.

4. Researchers completed a second “special contact” (phone or email) attempt, approximately 4 weeks after follow up post card.

Researchers also developed steps and implemented procedures to minimize four types of survey error: nonresponse error, sampling error, coverage error and measurement error.

Nonresponse Error

Nonresponse error stems from the fact that some of the members of the population do not respond to the survey questions. Response rates are a generally accepted indicator of nonresponse error. The general assumption is that the higher the response rate, the lower the potential of nonresponse error. The substance of both surveys present a challenge for predicting response rates, because participants in both programs may have been involved in settlement negotiations. Settlement negotiations are typically confidential and it is difficult to assess participants’ reluctance to answering questions in any way related to the process, even if the questions do not breach confidentiality. Previous research suggests the potential for reducing nonresponse error varies considerably across types of surveys. Topic salience and the effect of structural constraints (sponsorship and population to be surveyed) are two of the most important determinants of response rates.¹⁰

The initial mailing produced a response rate of 33% for Settlement Part and 25% for Conventional. The follow up postcard increased the response rates to approximately 38% and 35% for Settlement Part and Conventional, respectively. Subsequent contacts by the researchers increased response rates to 51% for Settlement Part and 50% for Conventional.

The tables below include the responses rate by category of respondent for each survey.

¹⁰ Heberlein, T.A. and R. Baumgartner (1978). Factors affecting response rates to mailed questionnaires: A quantitative analysis of the published literature. *American Sociological Review*, 43, 447-462.

Table C-i Settlement Part Survey Response Rate

Source	Number of Records	Number of Respondents	Response Rate
Representative of Employer (non-attorney)	17	8	47%
Representative of Employer (attorney)	68	37	64%
Solicitor for Department of Labor	44	19	43%
Authorized Employer Representative (Union)	12	8	67%
Attorney for Authorized Employee Representative	4	3	75%
Other	----	0	----
Total	144	74	52%

Table C-ii Conventional Proceedings Survey Response Rate

Source	Number of Records	Number of Respondents	Response Rate
Representative of Employer (non-attorney)	22	6	27%
Representative of Employer (attorney)	61	40	66%
Solicitor for Department of Labor	49	18	37%
Authorized Employer Representative (Union)	2	2	100%
Attorney for Authorized Employee Representative	0	0	----
Other *	2	2	100%
Total	134	68	50%
<i>*Researchers believe the records in this category are misidentified in the OSHRC database. The responses in this category are likely a result of respondent error (measurement error).</i>			

Minimizing nonresponse error involves motivating people to respond so that completed surveys are returned. A special effort should be made to ensure that response rates do not vary for different groups or by characteristics important to the study. Researchers made at least three attempts over the course of the survey to contact non-respondents by telephone and email to encourage returns.

Although final response rates are reasonable, possible nonresponse bias is assessed by comparing characteristics associated with respondents and non-respondents. The

traditional method compares the distribution of known relevant population characteristics for respondents and non-respondents for variables important to the research. Researchers compared the total proposed penalty amounts and number of items contested for the most recent cases for the two groups.¹¹ The results of statistical tests of mean differences show the two groups to be comparable.

Sampling Error

Sampling error is attributable to the fact that certain members of the population are excluded by virtue of selection of a subset, that is, because the surveys come from a sample and not the entire population. In the present research, our samples include only recent participants in OSHRC programs. There may be differences between this group and participants from earlier years, which could result in sampling error.

Coverage error

Coverage error occur when the choice of sampling mode may not provide adequate coverage of the population, as in the case with Internet surveys if a significant number of people in the population do not have access to the Internet. Our primary sampling mode is mail and we are confident that all samples in our frame receive mail. Researchers also took steps to check that all participants that should be on the mailing list were in fact on the lists provided by OSHRC. Researchers cross -checked docket numbers, dates and names on the lists provided with other information available from OSHRC's database. Duplicate entries on the list were removed to ensure that all elements had equal representation in the frame and that no element had a greater probability of selection.

Measurement Error

Measurement error refers to the discrepancy between underlying, unobserved variables, such as opinions or attitudes. Measurement error results from the process of observation, including the ability or desire of respondents to provide accurate information. It can also result from poorly worded questions. A survey pretest is a common method of reducing measurement error. Researchers did not conduct a pretest before mailing the survey, but many of the survey questions are identical to questions contained in IU's previous study of OSHRC's EZ Trial Program conducted in 2000/2001. Moreover, many of them are drawn directly from the procedural justice literature and other studies done on dispute resolution and dispute processes. Each question was worded to be as clear as possible for respondents and all responses are designed to be mutually exclusive and exhaustive. In addition, before finalizing the present questionnaire the researchers provided OSHRC Administrative Law Judges from all three area offices with an opportunity to provide feedback.

¹¹ Researchers can only base comparisons on available information. The most important information for comparison pertains to participants' perceptions of justice and satisfaction levels with OSHRC processes and outcomes. However, such comparisons cannot be made since the survey itself is the vehicle for ascertaining the information.

In conducting any survey, researchers are hopeful that respondents are able to provide well-informed answers. The more familiar our respondents are with the different types of OSHRC programs, the more acquainted they will likely be with the terms of art used in the survey. Respondents of both surveys are generally familiar with OSHRC programs of all types, not just the program (Mandatory Settlement Part or Conventional) that we asked them to answer questions about. The next two tables provide a sense of the respondents' familiarity with the different OSHRC programs, broken down by respondent role. As might be expected, attorneys that responded to both surveys are the most familiar with all of OSHR programs.

**Table C-iii. MSP Survey-
Familiarity of Respondents with Different OSHRC Programs by Role**

	Rep. of Employer-non attorney	Rep of Employer-attorney	Solicitor for DOL	Authorized Employee Representative (Union)	Attorney for Authorized Employee Representative
Simplified Proceedings	0	14	14	3	0
Conventional Case through Mandatory Settlement	5	33	19	6	2
Conventional case Resolved with a Trial	1	14	13	3	0
Conventional Case Resolved without a Trial	5	21	17	3	1
Total	11	82	63	15	3
<i>* There are more responses than number of respondents because each respondent checked "all that apply"</i>					

**Table C-iv. Conventional Survey-
Familiarity of Respondents with Different OSHRC Programs by Role**

	Rep. of Employer- non attorney	Rep of Employer- attorney	Solicitor for DOL	Authorized Employee Representative (Union)	Attorney for Authorized Employee Representative
Simplified Proceedings	2	11	5	0	0
Conventional Case through Mandatory Settlement	1	13	9	0	1
Conventional case Resolved with a Trial	0	8	8	0	1
Conventional Case Resolved without a Trial	1	15	7	1	1
Total	4	47	29	1	3
<p><i>* There are more responses than number of respondents because each respondent checked "all that apply"</i></p> <p><i>** A count of 2 "Others" not included in breakdown</i></p>					

Other Possible Limitations

The nature of the questions themselves also poses some limitations on generalizability and reliability. In both surveys we asked respondents to reflect on their most recent case at OSHRC when answering questions. It is possible that responses from these same respondents may differ at another point in time. The nature of respondents' most recent case provides at least some context for their responses. Respondents for both surveys typically described their case as having three dimensions. Most disputes in MSP and Conventional are described as: disagreement that OSHA violation(s) actually occurred; dispute about the fine amounts; and dispute about OSHA's characterization of the violations as willful, repeat, or serious. In comparing responses from both surveys, we note that respondents for the Conventional (Non-Simplified) cases disputed more aspects of the violations compared to respondents for the MSP survey. There are also more disputes about abatement period and more disputes about the nature of the violation associated with Conventional (Non-Simplified). The next two tables provide a context for survey responses but also highlight the comparative differences in the nature of the disputes underlying each survey.

Table C-v. MSP Survey-Nature of Most Recent Case

Answer	Bar	Responses*	
Disagreement that OSHA violation(s) actually occurred		57	84%
Dispute about the fine amounts		49	72%
Dispute about the abatement period		9	13%
Dispute about OSHA's characterization of the violations as willful, repeat, or serious		49	72%
Other		7	10%
Total		171	100%

** There are more responses than number of respondents because each respondent checked "all that apply"*

Table C-vi. Conventional Survey- Nature of Most Recent Case

Answer	Bar	Responses *	
Disagreement that OSHA violation(s) actually occurred		58	85%
Dispute about the fine amounts		56	82%
Dispute about the abatement period		26	38%
Dispute about OSHA's characterization of the violations as willful, repeat, or serious		54	79%
Other		6	9%
Total		200	100%

** There are more responses than number of respondents because each respondent checked "all that apply"*

Survey Response Summary

In this section we summarize survey responses according to five main themes:

- **Participants' Perceptions of Case/ Resolution Efficiency**
- **Procedural Justice**
- **Distributive Justice**
- **Discovery-Related Responses**
- **Participants' Preference for Different Adjudicatory Processes**

In this section we also reference relevant cross-tabulations. The cross-tabulations are labeled as tables C1 through C-37. Individual cross-tabulation tables show the questions and the aggregate responses by participant role. For ease of interpretation, we present participant roles in three categories: Employer Representatives (attorney and non-attorney); Employee Representatives (attorney and union); and Solicitor for DOL. We also merge response categories to form response groups: "very satisfied" and "satisfied" are merged; "dissatisfied" and "satisfied" are merged; "strongly agree" and "agree" are merged; "disagree" and "strongly disagree" are merged.

Individual cross tabulations also provide Chi-Square statistics. The Chi-Square statistic is the primary statistic used for computing statistical significance in cross-tabulation tables. Chi -Square is used to test whether or not two variables are independent. If the variables are independent (have no relationship), the results will be non-significant, and we are not able to reject the null hypothesis, meaning there is no relationship between the variables. If the variables are related, the results will be significant, and we are able to reject the null hypothesis, meaning there is a relationship between the variables. The Chi-Square statistic is given along with the associated probability of chance observation. If the p-value for statistical significance is .05 level, there is a very low chance (5% or less) that the variables are independent.

Participants' Perceptions of Case/ Resolution Efficiency

Overall, MSP participants are more satisfied than dissatisfied with the efficiency of MSP. Fifty-nine percent of respondents do not believe their case should have resolved sooner than it did, compared to 41 percent who do believe their case should have resolved sooner. Moreover, where dissatisfied, complaints are more directly related to the level of cooperation from OSHA rather than OSHRC participants in the case (See separate volume: ***Supplemental Report on All Survey Responses***). In a second question relevant to case efficiency, the responses can be interpreted as even more favorable. When asked if they were satisfied with the length of time it took to resolve their case: about 43 percent of survey respondents reported that they were satisfied or very satisfied with the length of time it took to resolve their case, compared to only 19 percent who expressed a level of

dissatisfaction with the resolution time (38 percent did not provide an opinion on the question). The majority of respondents (51 percent) also believe that their case would have required more time if there had been a trial on the merits, compared to about 24 percent who believe their case would have resolved sooner with a trial. (24 percent also did not express an opinion the question). If there is room for improvement, it may be in scheduling; about 49 percent of MSP survey respondents believe the scheduling of motions, hearings, and other matters was prompt; however, about 31 percent do not.

For cross-tabulations and detailed responses relevant to the MSP survey, see:

Table C-1. MSP: Opinion on Whether Case Should Have Resolved Sooner

Table C-2. MSP: Satisfaction with Time to Resolution

Table C-3. MSP: Opinion Comparing Time to Resolution for MSP to Trial on Merits

Table C-4. MSP: Opinion on Promptness of Scheduling Conferences, Motions, and Other Matters

Separate volume: Supplemental Report on All Survey Responses

Overall, the Conventional survey yielded very similar results on the question, do you think your case should have resolved sooner than it did? About 53 percent reporting that their case should not have resolved sooner than it did and 47 percent thinking it should have resolved sooner.¹² One question appears on the Conventional survey but not on the MSP survey that is relevant to participants' perceptions of case efficiency: Do you think the case would have settled earlier with the help of the judge? A total of 39 percent of Conventional survey respondents either agreed or strongly agreed that their case would have settled earlier with the help of a judge, compared to 24 percent who either disagreed or strongly disagreed. About 36 percent were "neutral," this likely due to the fact that many Conventional cases do in fact eventually settle. Finally, a total of 88 percent of survey participants either agreed or strongly agreed that the scheduling of conferences and other matters was prompt; compared to about 3 percent that disagreed or strongly disagreed. Thus, participants in Conventional Proceedings appear to be generally more satisfied with the prompt scheduling of conferences, motions, and other matters. For cross-tabulations and detailed responses relevant to the Conventional Proceedings survey, see:

Table C-5. CP: Opinion on Whether Case Should Have Resolved Sooner Table

Table C-6. CP: Opinion on Earlier Resolution with Help of Judge

Table C-7. CP: Opinion on Promptness of Conferences, Motions, and Other Matters

¹² The Conventional Proceedings survey did not include the question, are you satisfied with the length of time it took to resolve your case?

Against this backdrop, we note that most cases in both MSP and Conventional (non-Simplified) do settle, and many cases settle early on in the process. A very high 99 percent of MSP survey respondents reported that their case did settle without a trial, and only 1 percent (and only one respondent) reported having a trial. Moreover, about 21 percent settled their case prior to the Settlement Part conference, compared to 40 percent who settled after the conference but before a trial was scheduled, and 38 percent who settled after the conference and after a trial was scheduled. For cross-tabulations and detailed responses relevant to the MSP survey, see:

Table C-8. MSP: Point of Case Resolution

Ninety-one percent of Conventional survey respondents reported that their case resolved before a trial on the merits. Thus, the numbers in our small sample suggest a slightly higher settlement rate for MSP compared to Conventional. With respect to the timing of Conventional case settlements, 55 percent of respondents report settling before a trial on the merits was scheduled; 36 percent report settlement after a trial on the merits was scheduled, but before the trial began. For cross-tabulations and detailed responses relevant to the Conventional Proceedings survey, see:

Table C-9. CP: Point of Case Resolution

Procedural Justice

We conclude from analysis of surveys that participants in both OSHRC Settlement Part and Conventional Proceedings give the agency high marks for procedural justice. Procedural justice concerns the fairness and transparency of the process by which decisions are made. Theories of procedural justice hold that fair procedures lead to equitable outcomes, even if the requirements of distributive justice are not met. As a result, participants in dispute resolution processes who believe they are treated fairly tend to be more satisfied overall. High quality interpersonal interactions are a key component of procedural justice and affect a person's perception of fairness during conflict resolution. Overall, the majority (73 percent) of MSP participants are either very satisfied or satisfied with the fairness of OSHRC processes, compared to 12 percent who expressed a level of dissatisfaction. When asked about their most recent experience with Mandatory Settlement Part, majorities also reported that they were treated with respect (92 percent), were satisfied with the level of control over the process (73 percent), believed the amount of information exchanged in their case was appropriate given the facts/nature of the case (70 percent), and were able to participate as fully as they needed (82 percent). For cross-tabulations and detailed responses relevant to the MSP survey, see:

Table C-10. MSP: Satisfaction with Fairness of the Process

Table C-11. MSP: Satisfaction with Level of Respect

Table C-12. MSP: Satisfaction with Level of Control Over Process

Table C-13. MSP: Opinion on Appropriateness of Amount of Information Exchanged

Table C-14. MSP: Ability to Participate Fully as Needed

Mandatory Settlement Part responses are generally comparable to the Conventional Proceedings survey, which also show high ratings for the main indicators of procedural justice. Overall, the majority (82 percent) of Conventional survey respondents reported that they were either very satisfied or satisfied with the fairness of OSHRC processes, compared to only 6 percent who expressed a level of dissatisfaction. When asked about their most recent OSHRC experience, majorities reported satisfaction with the level of respect with which they were treated (91 percent) and satisfaction with the level of control they had over the process (77 percent). Majorities also were in agreement that the amount of information exchanged in their case was appropriate given the facts/nature of the case (91 percent), and that they were able to adequately present and defend their position (94 percent).¹³ For cross-tabulations and detailed responses relevant to the Conventional Proceedings survey, see:

Table C-15. CP: Satisfaction with Fairness of Process

Table C-16. CP: Satisfaction with Level of Respect

Table C-17. CP: Satisfaction with Level of Control Over Process

Table C-18. CP: Ability to Adequately Present and Defend Position

Table C-19. CP: Opinion on Appropriateness of Amount of Information Exchanged

MSP survey responses suggest participants do in fact find OSHRC's rules of procedure for Settlement Part easy to understand. About 84 percent of survey participants agree or strongly agree that OSHRC's rules of procedure are easy to understand; only 8 percent disagree or strongly disagree that OSHRC's rules of procedure are easy to understand. For the cross-tabulation and detailed responses relevant to the MSP survey, see:

Table C-20. MSP: Rules of Procedure are Easy to Understand

Again, Mandatory Settlement Part compares favorably to Conventional survey responses show similar high levels of satisfaction regarding the clarity of OSHRC rules. Overall, 79 percent of survey participants agreed or strongly agreed that the rules of procedure were easy to understand; 15 percent neither agreed nor disagreed; and six percent disagreed or strongly disagreed. For the cross-tabulation and detailed responses relevant to the Conventional Proceedings survey, see:

¹³ The MSP survey question differs from the Conventional survey question regarding participation. The MSP survey reads: "I was able to participate as fully as needed." The Conventional survey reads, "I was able to adequately present and defend my position." Responses in both surveys are scaled from strongly disagree to agree.

Table C-21. CP: Rules of Procedure are Easy to Understand

We know from the literature that the quality of interpersonal interactions are a key component of procedural justice and affect a person's perception of fairness during conflict resolution. Personal contacts are usually valued more by those who interact than communications by mail, for example. Two questions on the MSP survey provide an indication of the mode of interaction and the frequency of interaction between recent MSP participants and OSHRC's Administrative Law Judges. About 70 percent of MSP survey respondents reported that they met with the settlement judge, in-person, at least once during their most recent MSP case, while about 30 percent reported that they did not meet with the judge at all. With respect to frequency of personal interactions, about 45 percent reported that they appeared before the judge only once, about 21 percent appeared between 2 and 5 times and 4 percent (only 3 respondents) appeared more than 5 times. For the cross-tabulation and detailed responses relevant to the MSP survey, see:

Table C-22. MSP: Number of Times Met for Settlement Conference In-Person

In the MSP survey we also asked the more general question about the number of times participants communicated with the judge, which could include mail and phone contacts as well as in-person meetings, 93 percent reported that they communicated with the judge at least once; and a small percent (7 percent) reported never communicating with the settlement judge, and only 6 respondents reported more than 5 contacts. For the cross-tabulation and detailed responses relevant to the MSP survey, see:

Table C-23. MSP: Number of Times Communication Exchanged with Judge During Settlement Process

Conventional cases do not provide a basis for a meaningful comparison. However, we do provide the cross tabulations for Conventional cases relevant to communications with the judge. See:

Table C-24. CP: Number of Times Communication Exchanged with Judge During Litigation Process- Orally

Table C-25. CP: Number of Times Communication Exchanged with Judge During Litigation Process- Written Form

Distributive Justice

Distributive justice concerns the notion of fair outcomes. Overall, the large majority of respondents were either very satisfied or satisfied (68 percent) with the overall outcome of their recent experience with the Mandatory Settlement Part, while a minority were very dissatisfied or dissatisfied (16 percent). For the cross-tabulation and detailed responses relevant to the MSP survey, see:

Table C-26. MSP: Satisfaction with Overall Outcome of Case

These perceptions of fair MSP outcome were generally comparable to participants' perceptions of outcomes in Conventional Proceedings: A total of 79 percent of survey respondents were either satisfied or very satisfied with the overall outcome of the case. However, fewer participants were dissatisfied or highly dissatisfied in Conventional cases (3 percent). Given that the MSP cases were higher stakes cases due to its jurisdictional amount, this difference is understandable. For the cross-tabulation and detailed responses relevant to the Conventional Proceedings survey, see:

Table C-27. CP: Satisfaction with Overall Outcome of the Case

Even well-designed processes can have a less than desirable outcome. Thus, researchers sometimes consider participant satisfaction *with the process overall* as both an outcome and a process measure, i.e. an indicator of procedural justice and distributive justice. When asked about fairness of the process overall, about 74 percent of respondents were either satisfied or very satisfied, compared to 12 percent who were either dissatisfied or very dissatisfied. About 14 percent of respondents were neutral on the question. For the cross-tabulation and detailed responses relevant to the MSP survey, see:

Table C-28. MSP: Satisfaction with Process Overall

The Conventional survey also includes the question: How satisfied are you with the *process overall*? Responses indicate 84 percent of respondents were either satisfied or very satisfied, compared to a very low 3 percent who expressed a level of dissatisfaction. About 13 percent of respondents were neutral on the question. For the additional cross-tabulation and detailed responses relevant to the Conventional Proceedings survey, see:

Table C-29. CP: Satisfaction with Process Overall

Responses to Discovery-Related Questions

Over the past decade OSHRC has made various changes to its rules of procedure, including changes to the timing of discovery. Responses to three questions in our survey provide useful information for understanding participants' perceptions of a few of OSHRC's rules. Specifically, in both surveys we asked participants for their opinions on the timing of discovery (both before and after the in-person settlement conference). We also asked for opinions on the timing of the in-person settlement conference. All three of these questions were not applicable to the subset of those individuals who did not engage in discovery or have an in-person settlement conference with the judge during their most recent case.

The survey results suggest that the agency might reconsider how it handles information exchange and discovery in Mandatory Settlement Part. Of those that responded to the Settlement Part survey, about 52 percent believe the timing of information exchange in advance of the in-person conference was “just right.” When asked the more general question about the timing of discovery during the process, 41 percent of all survey respondents felt that discovery occurred at “just the right time,” whereas about 29 percent of respondents felt that discovery occurred either earlier or later than it should have been, and about 30 percent of respondents did not believe the question was applicable to their experience. The majority of respondents (68 percent) also believe the judge should have discretion in suspending discovery, compared to only 9 percent who believe the judge should not have discretion in suspending discovery. For the cross-tabulations and detailed responses relevant to the MSP survey, see

Table C-30. MSP: Opinion on Timing of Exchange of Information in Advance of In-Person Settlement Conference.

Table C-31. MSP: Opinion on Timing of Information Exchange (Discovery) During In-Person Settlement Conference.

Table C-32. MSP: Opinion on Judge’s Use of Discretion to Suspend Discovery During Settlement Process.

For Conventional survey, the questions are phrased to match the participants’ experience with the program. The first corresponding question for Conventional reads: *In your opinion, does information exchange in advance of trial begin...?* Given the differences between MSP and Conventional Proceedings, as well as differences in the survey questions for participants, we do not think there is a basis for meaningful comparison. However, we do provide the relevant cross tabulations for Conventional cases. See:

Table C-33. CP: Opinion on Begin Time for Exchange of Information in Advance of Any Trial

Table C-34. CP: Opinion on End Time of Information Exchange in Advance of Trial

Participants’ Preference for Different Adjudicatory Processes

MSP Participants’ Preference of Trial over MSP

Participants may prefer a trial on the merits over Mandatory Settlement whether or not they believe MSP is more efficient than a trial. They may also prefer a trial even if they were satisfied with the fairness of MSP processes and/or satisfied with MSP outcomes. We know from our interviews that some OSHRC internal stakeholders believe that MSP is not always the best course of action. Two questions in our survey provide an indicator of participants’ preferences for MSP over a trial. First, we asked participants the question directly: Would you have preferred a trial on the merits? In a separate question we asked participants if they believe their case *probably would not have settled* without the help of the judge. While the first question goes to the heart of participants’ preference for one

type of adjudicatory process over the other, the latter question may be a reason for the preference.

More respondents (48 percent) *would not have preferred* a trial than would have (18 percent), while about 34 percent did not express a preference one way or the other. This result implies most MSP participants agree with the assignment of their case to Mandatory Settlement. On the second question, overall, 53 percent of survey respondents agreed or strongly agreed that their case probably would not have settled without the help of a judge, compared with 18 percent that believed the case probably would have settled without the help of the judge. About 29 percent of respondents did not express any opinion on the second question. For the cross-tabulation and detailed responses relevant to the MSP survey, see:

Table C-35. MSP: Preference for Trial Over Mandatory Settlement Part

Table C-36. MSP: Opinion on Probability of Settlement Without Help of Judge

Conventional Proceedings participants share a similar but less convincing preference for official settlement procedures.¹⁴ Responses for this survey indicate that more respondents (33 percent) would have preferred engaging in settlement processes before a settlement judge, than would not have (24 percent), while about 44 percent did not express a preference one way or the other. For cross-tabulation and detailed responses relevant to the Conventional Proceedings survey, see:

Table C-37. CP: Preference for Conventional Proceedings over Mandatory Settlement

Summary of Findings and Conclusions

Generally, MSP compares favorably to Conventional Proceedings in participants perceptions. Several key findings emerge from the two surveys:

- By slight majorities, recent participants of both Mandatory Settlement Part and Conventional Proceedings are more satisfied than dissatisfied with the efficiency of OSHRC programs. Moreover, where some dissatisfaction was expressed, complaints are more directly related to the level of cooperation from OSHA rather than OSHRC participants in the case. If there is room for improvement, it may be in scheduling; about 49 percent of MSP survey respondents believe the scheduling of motions, hearings, and other matters was prompt; however, about 31 percent do not. In contrast, participants in Conventional Proceedings appear to be generally more satisfied with the prompt scheduling of conferences, motions, and other matters; a total of 88 percent of survey participants either agreed or strongly agreed that the scheduling of conferences and other matters was prompt.

¹⁴ In the survey for participants of recent Conventional Proceeding, we did not include the question: Do you think the case *would have settled* without the help of a Judge?

- Participants in both OSHRC programs give the agency high marks for procedural justice. With majorities ranging between 70 percent and 92 percent respondents report satisfaction with the fairness of OSHRC processes, satisfaction with the respect with which they were treated, and the level of control they had over the process. Substantial majorities in both groups also reported that they were able to participate in their case as fully as they needed (MSP= 82 percent; Conventional =94 percent).
- Participants in both OSHRC programs give the agency high marks for clarity of rule. About 84 percent of MSP survey respondents agree or strongly agree that OSHRC's rules of procedure are easy to understand, compared to 79 percent that express similar levels of agreement in the Conventional Proceedings survey.
- Distributive justice indicators also suggest high marks for the agency for both survey groups. A majority of MSP survey respondents reported that they were either very satisfied or satisfied (68 percent) with the overall outcome of their recent experience with the Mandatory Settlement Part than were very dissatisfied or dissatisfied (16 percent). Comparable high ratings, but fewer negative responses, are indicated by recent participants of Conventional Proceedings: A total of 79 percent of survey respondents were either satisfied or very satisfied with the overall outcome of the case compared to only 3 percent were either dissatisfied or very dissatisfied. This difference is likely a function in the amount in controversy and the fact that Settlement Part cases are higher stakes cases.
- Participants in both OSHRC programs report mixed opinions on the timing of the information exchange in their respective programs. On the general question about the timing of discovery during the process, 41 percent of all MSP survey respondents felt that discovery occurred at "just the right time," whereas about 29 percent of respondents felt that discovery occurred either earlier or later than it should have been. In comparison, 74 percent of Conventional survey respondents felt that information exchange in advance of any trial **began at just the right time**. This difference suggests that the agency might want to examine the timing of information exchange in Settlement Part.

Participants generally accept efforts by judges to help them settle cases. Recent MSP participants are more likely to prefer official settlement processes (48 percent), than a trial on the merits (18 percent). This result implies most MSP participants agree with the assignment of their case to Mandatory Settlement Part. Interestingly, more Conventional participants also prefer official settlement proceedings before a settlement judge than trial on the merits (33 percent compared to 24 percent).

Table C-1. MSP: Opinion on Whether Case Should Have Resolved Sooner				
		Do you think your case should have resolved sooner than it did?		
		No	Yes	Total
Role in most recent Settlement Part case	Rep. of Employer- non attorney, Rep of Employer- attorney	26	18	43
		60.47%	41.86%	100.00%
	Solicitor for DOL	10	7	17
		58.82%	41.18%	100.00%
	Authorized Employee Representative (Union), Attorney for Authorized Employee Representative	6	5	11
		54.55%	45.45%	100.00%
<i>Chi-Square(4)</i> <i>1.91</i>		42	30	71
<i>p-value= 0.75</i>	Total	59.15%	42.25%	100.00%

Table C-2. MSP: Satisfaction with Time to Resolution					
		Are you satisfied were you with the length of time it took to resolve the case?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	19	18	7	44
		43.18%	40.91%	15.91%	100.00%
	Solicitor for DOL	8	7	4	19
		42.11%	36.84%	21.05%	100.00%
	Employee Representative (attorney and Union)	4	2	3	9
		44.44%	22.22%	33.33%	100.00%
<i>Chi-Square(4)</i> <i>1.94</i>		31	27	14	72
<i>p-value=0.75</i>	Total	43.06%	37.50%	19.44%	100.00%

Table C-3. MSP: Opinion Comparing Time to Resolution for MSP to Trial on Merits					
		I think this case would have required more time if a trial on the merits was held.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Settlement Part case	Rep. of Employer- non attorney, Rep of Employer- attorney	24	10	11	45
		53.33%	22.22%	24.44%	100.00%
	Solicitor for DOL	10	4	5	19
		52.63%	21.05%	26.32%	100.00%
	Authorized Employee Representative (Union), Attorney for Authorized Employee Representative	4	4	2	10
		40.00%	40.00%	20.00%	100.00%
<i>Chi-Square (4)</i> <i>1.58</i>		38	18	18	74
<i>p-value=0.81</i>	Total	51.35%	24.32%	24.32%	100.00%

Table C-4. MSP: Opinion on Promptness of Conferences, Motions, and Other Matters					
		I think the scheduling of conferences, motions, and other matters was prompt.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	24	9	11	45
		53.33%	20.00%	26.67%	100.00%
	Solicitor for DOL	9	4	6	19
		47.37%	21.05%	31.58%	100.00%
	Employee Representative (attorney and Union)	4	2	5	11
		36.36%	18.18%	45.45%	100.00%
<i>Chi-Square(4)</i> <i>1.43</i>		37	15	22	74
<i>p-value=0.84</i>	Total	49.33%	20.00%	30.67%	100.00%

Table C-5. CP: Opinion on Whether Case Should Have Resolved Sooner				
		Do you think your case should have resolved sooner than it did?		
		No	Yes	Total
Role in most recent Conventional Case	Rep. of Employer-non attorney, Rep of Employer-attorney	26	26	46
		56.52%	56.52%	100.00%
	Solicitor for DOL	10	8	16
		62.50%	50.00%	100.00%
	Authorized Employee Representative (Union), Attorney for Authorized Employee Representative	0	2	2
		0.00%	100.00%	100.00%
<i>Chi-Square(2)</i> 0.22		36	32	68
<i>p-value=0.89</i>	Total	53.00%	47%	100.00%

Table C-6. CP: Opinion on Earlier Resolution with Help of Judge					
		The case would have settled earlier with the help of the judge.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	20	14	10	44
		45.45%	31.82%	22.73%	100.00%
	Solicitor for DOL	4	8	6	18
		22.22%	44.44%	33.33%	100.00%
	Employee Representative (attorney, Union, and other)	2	2	0	4
		50.00%	50.00%	0.00%	100.00%
<i>Chi-Square (4)</i> 4.27		26	24	16	66
<i>p-value=0.37</i>	Total	39.39%	36.36%	24.24%	100.00%

Table C-7. CP: Opinion on Promptness of Conferences, Motions, and Other Matters.					
		I think the scheduling of conferences and other matters was prompt.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	38	6	2	46
		82.61%	13.04%	4.35%	100.00%
	Solicitor for DOL	16	0	0	16
		100.00%	0.00%	0.00%	100.00%
	Employee Representative (attorney, Union, and other)	4	0	0	4
		100.00%	0.00%	0.00%	100.00%
<i>Chi-Square(4)3.96</i>		58	6	2	66
<i>p-value=0.41</i>	Total	87.88%	9.09%	3.03%	100.00%

Table C-8. MSP: Point of Case Resolution

		At what point was your case resolved?					
		Prior to a settlement conference	After the conclusion of a settlement conference but before a trial was scheduled	After the conclusion of the settlement conference, after a trial was scheduled, but before the start of a trial.	During the course of a trial on the merits.	After a trial on the merits.	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	11	19	13	0	0	43
		25.58%	44.19%	30.23%	0.00%	0.00%	100.00%
	Solicitor for DOL	2	8	8	0	0	18
		11.11%	44.44%	44.44%	0.00%	0.00%	100.00%
	Employee Representative (attorney and Union)	2	2	6	0	1	11
		18.18%	18.18%	54.55%	0.00%	9.09%	100.00%
<i>Chi-Square(8)</i> <i>10.13</i>		15	29	27	0	1	72
<i>p-value=0.26</i>	Total	20.83%	40.28%	37.50%	0.00%	1.39%	100.00%

Table C-9. CP: Point of Case Resolution

		At what point was your case resolved?				
		Before a trial on the merits was scheduled	After a trial on the merits was scheduled, but before the trial began	During the course of trial on the merits	After a trial on the merits	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	28	18	0	0	46
		60.87%	39.13%	0.00%	0.00%	100.00%
	Solicitor for DOL	6	4	0	6	16
		37.50%	25.00%	0.00%	37.50%	100.00%
	Employee Representative (attorney, Union, and other)	2	2	0	0	4
		50.00%	50.00%	0.00%	0.00%	100.00%
<i>Chi-Square(6)20.82</i>		36	24	0	6	66
<i>p-value=0.00</i>	Total	54.55%	36.36%	0.00%	9.09%	100.00%

Table C-10. MSP: Satisfaction with Fairness of the Process					
		How satisfied were you with the fairness of the process?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	30	7	8	45
		66.67%	15.56%	17.78%	100.00%
	Solicitor for DOL	18	1	0	19
		94.74%	5.26%	0.00%	100.00%
	Employee Representative (attorney and Union)	7	3	1	11
		63.64%	27.27%	9.09%	100.00%
<i>Chi-Square(4)</i> 7.57		55	11	9	75
<i>p-value=0.11</i>	Total	73.33%	14.67%	12.00%	100.00%

Table C-11. MSP: Satisfaction with Level of Respect					
		How satisfied with the level of respect with which you were treated during the Settlement Part processes?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Settlement Part case	Representative of Employer (attorney and non-attorney)	43	1	1	45
		95.56%	2.22%	2.22%	100.00%
	Solicitor for DOL	18	1	0	19
		94.74%	5.26%	0.00%	100.00%
	Representative of Employee (attorney and union)	8	2	1	11
		72.73%	18.18%	9.09%	100.00%
<i>Chi-Square (4)</i> 6.99		69	4	2	75
<i>p-value=0.14</i>	Total	92.00%	5.33%	2.67%	100.00%

Table C-12. MSP: Satisfaction with Level of Control Over Process					
		How satisfied were you with the level of control you had over the process?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	30	5	9	44
		68.18%	11.36%	20.45%	100.00%
	Solicitor for DOL	17	2	0	19
		89.47%	10.53%	0.00%	100.00%
	Employee Representative (attorney and Union)	7	2	2	11
		63.64%	18.18%	18.18%	100.00%
<i>Chi-Square(4)5.10</i>		54	9	11	74
<i>p-value=0.28</i>	Total	72.97%	12.16%	14.86%	100.00%

Table C-13. MSP: Opinion on Appropriateness of Amount of Information Exchanged					
		The amount of information exchanged in the case was appropriate given the facts/ nature of the case.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	30	8	6	44
		68.18%	18.18%	13.64%	100.00%
	Solicitor for DOL	15	3	1	19
		78.95%	15.79%	5.26%	100.00%
	Employee Representative (attorney and Union)	7	3	1	11
		63.64%	27.27%	9.09%	100.00%
<i>Chi-Square(4)1.71</i>		52	14	8	74
<i>p-value=0.79</i>	Total	70.27%	18.92%	10.81%	100.00%

Table C-14. MSP: Ability to Participate Fully as Needed					
		I was able to participate in the process fully as needed.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	34	8	2	44
		77.27%	18.18%	4.55%	100.00%
	Solicitor for DOL	18	1	0	19
		94.74%	5.26%	0.00%	100.00%
	Employee Representative (attorney and Union)	9	2	0	11
		81.82%	18.18%	0.00%	100.00%
<i>Chi-Square(4)3.33</i>		61	11	2	74
<i>p-value=0.50</i>	Total	82.43%	14.86%	2.70%	100.00%

Table C-15. CP: Satisfaction with Fairness of the Process					
		How satisfied were you with the fairness of the process?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	34	6	4	44
		77.27%	13.64%	9.09%	100.00%
	Solicitor for DOL	18	0	0	18
		100.00%	0.00%	0.00%	100.00%
	Employee Representative (attorney, Union, and other)	2	2	0	4
		50.00%	50.00%	0.00%	100.00%
<i>Chi-Square(4)10.33</i>		54	8	4	66
<i>p-value=0.04</i>	Total	81.82%	12.12%	6.06%	100.00%

Table C-16. CP: Satisfaction with Level of Respect					
		How satisfied with the level of respect with which you were treated during the Conventional processes?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	40	2	2	44
		90.91%	4.55%	4.55%	100.00%
	Solicitor for DOL	18	0	0	18
		100.00%	0.00%	0.00%	100.00%
	Employee Representative (attorney, Union, and other)	2	0	2	4
		50.00%	0.00%	50.00%	100.00%
<i>Chi Square(4)15.90</i>		60	2	4	66
<i>p-value=0.00</i>	Total	90.91%	3.03%	6.06%	100.00%

Table C-17. CP: Satisfaction with Level of Control Over Process					
		How satisfied were you with the level of control you had over the process?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	32	6	2	40
		80.00%	15.00%	5.00%	100.00%
	Solicitor for DOL	16	2	0	18
		88.89%	11.11%	0.00%	100.00%
	Employee Representative (attorney, Union, and other)	0	4	0	4
		0.00%	100.00%	0.00%	100.00%
<i>Chi Square(4)19.00</i>		48	12	2	62
<i>p-value=0.00</i>	Total	77.42%	19.35%	3.23%	100.00%

Table C-18. CP: Ability to Adequately Present and Defend Position					
		I was able to adequately present and defend my position.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	44	2	0	46
		95.65%	4.35%	0.00%	100.00%
	Solicitor for DOL	18	0	0	18
		100.00%	0.00%	0.00%	100.00%
	Employee Representative (attorney, Union, and other)	2	0	2	4
		50.00%	0.00%	50.00%	100.00%
<i>Chi Square(4)33.86</i>		64	2	2	68
<i>p-value=0.00</i>	Total	94.12%	2.94%	2.94%	100.00%

Table C-19. CP: Opinion on Appropriateness of Amount of Information Exchanged					
		The amount of information exchanged in the case was appropriate given the facts/ nature of the case.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	40	2	4	46
		86.96%	4.35%	8.70%	100.00%
	Solicitor for DOL	18	0	0	18
		100.00%	0.00%	0.00%	100.00%
	Employee Representative (attorney, Union, and other)	4	0	0	4
		100.00%	0.00%	0.00%	100.00%
<i>Chi Square(4)3.15</i>		62	2	4	68
<i>p-value=0.53</i>	Total	91.18%	2.94%	5.88%	100.00%

Table C-20. MSP: Rules of Procedure are Easy to Understand

		OSHRC's rules of procedure are easy to understand.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	36	4	5	45
		80.00%	8.89%	11.11%	100.00%
	Solicitor for DOL	18	1	0	19
		94.74%	5.26%	0.00%	100.00%
	Employee Representative (attorney and Union)	9	1	1	11
		81.82%	9.09%	9.09%	100.00%
<i>Chi Square(4)2.67</i>		63	6	6	75
<i>p-value=0.61</i>	Total	84.00%	8.00%	8.00%	100.00%

Table C-21. CP: Rules of Procedure are Easy to Understand					
		OSHRC's rules of procedure are easy to understand.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	34	8	2	44
		77.27%	18.18%	4.55%	100.00%
	Solicitor for DOL	18	0	0	18
		100.00%	0.00%	0.00%	100.00%
	Employee Representative (attorney, Union, and other)	0	2	2	4
0.00%		50.00%	50.00%	100.00%	
<i>Chi Square(4)</i> 24.39		52	10	4	66
<i>p-value=0.00</i>	Total	78.79%	15.15%	6.06%	100.00%

Table C-22. MSP: Number of Times Met for Settlement Conference In-Person						
		Did you have a settlement conference on your recent case where you appeared in person before a settlement judge?				
		No, I did not have settlement conference where I appeared in person	I appeared 1 time in person with the settlement judge for a settlement conference	I appeared 2-5 times in person with the settlement judge for a settlement conference	I appeared more than 5 times with the settlement judge for a settlement conference	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	15	18	9	2	44
		34.09%	40.91%	20.45%	4.55%	100.00%
	Solicitor for DOL	3	9	6	0	18
		16.67%	50.00%	33.33%	0.00%	100.00%
	Employee Representative (attorney and Union)	4	6	0	1	11
36.36%		54.55%	0.00%	9.09%	100.00%	
<i>Chi Square(4)</i> 7.05		22	33	15	3	73
<i>p-value=0.32</i>	Total	30.14%	45.21%	20.55%	4.11%	100.00%

Table C-23. MSP: Number of Times Communication Exchanged During Settlement Process						
		About how many times did you communicate with the judge during the settlement process?				
		never	only one	2-5 times	more than 5 times	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	2	13	23	5	43
		4.65%	30.23%	53.49%	11.63%	100.00%
	Solicitor for DOL	0	3	14	0	17
		0.00%	17.65%	82.35%	0.00%	100.00%
	Employee Representative (attorney and Union)	3	5	2	1	11
		27.27%	45.45%	18.18%	9.09%	100.00%
<i>Chi Square(8)18.55</i>		5	21	39	6	71
<i>p-value=0.01</i>	Total	7.04%	29.58%	54.93%	8.45%	100.00%

Table C-24. CP: Number of Times Communication Exchanged with Judge During Litigation Process-Orally						
		About how many times did you communicate orally with the Judge during the litigation process before trial?				
		Never	Only 1	5-Feb	more than 5	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	12	2	28	4	46
		26.09%	4.35%	60.87%	8.70%	100.00%
	Solicitor for DOL	0	0	14	2	16
		0.00%	0.00%	87.50%	12.50%	100.00%
	Employee Representative (attorney, Union, and other)	2	0	2	0	4
		50.00%	0.00%	50.00%	0.00%	100.00%
<i>Chi Square(6)8.36</i>		14	2	44	6	66
<i>p-value=0.21</i>	Total	21.21%	3.03%	66.67%	9.09%	100.00%

Table C-25. CP: Number of Times Communication Exchanged with Judge During Litigation Process- Written Form						
		About how many times did you communicate in written form with the Judge during the litigation process before trial?				Total
		never	only one	2-5 times	more than 5 times	
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	10	12	18	6	46
		21.74%	26.09%	39.13%	13.04%	100.00%
	Solicitor for DOL	2	0	10	6	18
		11.11%	0.00%	55.56%	33.33%	100.00%
	Employee Representative (attorney, Union, and other)	2	2	0	0	4
		50.00%	50.00%	0.00%	0.00%	100.00%
<i>Chi Square(6) 14.92</i>		14	14	28	12	68
<i>p-value=0.02</i>	Total	20.59%	20.59%	41.18%	17.65%	100.00%

Table C-26. MSP: Satisfaction with Overall Outcome of the Case						
		How satisfied were you with the overall outcome of the case?				Total
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied		
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	32	5	7	44	
		72.73%	11.36%	15.91%	100.00%	
	Solicitor for DOL	12	3	4	19	
		63.16%	15.79%	21.05%	100.00%	
	Employee Representative (attorney and Union)	6	3	1	10	
		60.00%	30.00%	10.00%	100.00%	
<i>Chi Square(4)2.84</i>		50	11	12	73	
<i>p-value=0.59</i>	Total	68.49%	15.07%	16.44%	100.00%	

Table C-27. CP Satisfaction with Overall Outcome of the Case					
		How satisfied were you with the overall outcome of the case?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	34	10	0	44
		77.27%	22.73%	0.00%	100.00%
	Solicitor for DOL	16	0	2	18
		88.89%	0.00%	11.11%	100.00%
	Employee Representative (attorney, Union, and other)	2	2	0	4
		50.00%	50.00%	0.00%	100.00%
<i>Chi Square(4) 12.00</i>		52	12	2	66
<i>p-value=0.02</i>	Total	78.79%	18.18%	3.03%	100.00%

Table C-28. MSP: Satisfaction with Process Overall					
		How satisfied were you with the process overall?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	33	4	7	44
		75.00%	9.09%	15.91%	100.00%
	Solicitor for DOL	14	3	2	19
		73.68%	15.79%	10.53%	100.00%
	Employee Representative (attorney and Union)	8	3	0	11
		72.73%	27.27%	0.00%	100.00%
<i>Chi Square(4)12.00</i>		55	10	9	74
<i>p-value=0.02</i>	Total	74.32%	13.51%	12.16%	100.00%

Table C-29. CP: Satisfaction with Process Overall					
		How satisfied were you with the process overall?			
		Very Satisfied, Satisfied	Neutral	Dissatisfied, Very Dissatisfied	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	34	6	2	42
		80.95%	14.29%	4.76%	100.00%
	Solicitor for DOL	18	0	0	18
		100.00%	0.00%	0.00%	100.00%
	Employee Representative (attorney, Union, and other)	2	2	0	4
		50.00%	50.00%	0.00%	100.00%
<i>Chi Square(4)</i> 9.04	Total	54	8	2	64
<i>p-value=0.06</i>		84.38%	12.50%	3.13%	100.00%

Table C-30. MSP: Opinion on Timing of Information Exchange in Advance of In-Person Settlement Conference								
		In your opinion, does the information exchange in advance of any in-person settlement conference begin:						Total
		too early	a little early	just right	a little late	too late	not applicable to my experience	
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	1	1	22	9	2	7	42
		2.38%	2.38%	52.38%	21.43%	4.76%	16.67%	100.00%
	Solicitor for DOL	1	2	11	3	0	1	18
		5.56%	11.11%	61.11%	16.67%	0.00%	5.56%	100.00%
	Employee Representative (attorney and Union)	0	0	4	4	0	3	11
		0.00%	0.00%	36.36%	36.36%	0.00%	27.27%	100.00%
<i>Chi Square(10)</i> 11.96	Total	2	3	37	16	2	11	71
<i>p-value=0.29</i>		2.82%	4.23%	52.11%	22.54%	2.82%	15.49%	100.00%

Table C-31. MSP: Opinion on Timing of Information Exchange (Discovery) During In-Person Settlement Conference								
		In your opinion, does information exchange (discovery) during in-person settlement conference begin:						
		too early	a little early	just right	a little late	too late	not applicable to my experience	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	1	1	16	7	2	16	43
		2.33%	2.33%	37.21%	16.28%	4.65%	37.21%	100.00%
	Solicitor for DOL	1	0	11	5	1	1	19
		5.26%	0.00%	57.89%	26.32%	5.26%	5.26%	100.00%
	Employee Representative (attorney and Union)	0	0	3	3	0	5	11
		0.00%	0.00%	27.27%	27.27%	0.00%	45.45%	100.00%
<i>Chi Square(4)10.26</i>		2	1	30	15	3	22	73
<i>p-value=0.42</i>	Total	2.74%	1.37%	41.10%	20.55%	4.11%	30.14%	100.00%

Table C-32. MSP: Opinion on Judge's Use of Discretion to Suspend Discovery During Settlement Process.					
		The judge should have discretion to suspend discovery during the settlement process.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	33	7	4	44
		75.00%	15.91%	9.09%	100.00%
	Solicitor for DOL	13	3	3	19
		68.42%	15.79%	15.79%	100.00%
	Employee Representative (attorney and Union)	4	7	0	11
		36.36%	63.64%	0.00%	100.00%
<i>Chi Square(4)13.10</i>	Total	50	17	7	74
<i>p-value=0.01</i>		67.57%	22.97%	9.46%	100.00%

Table C-33. CP: Opinion on Begin Time for Information Exchange in Advance of Any Trial								
		In your opinion, does information exchange (discovery) in advance of any trial begin:						
		too early	a little early	just right	a little late	too late	not applicable to my experience	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	0	2	36	4	0	4	46
		0.00%	4.35%	78.26%	8.70%	0.00%	8.70%	100.00%
	Solicitor for DOL	0	2	12	0	2	2	18
		0.00%	11.11%	66.67%	0.00%	11.11%	11.11%	100.00%
	Employee Representative (attorney, Union, and other)	0	0	2	0	0	2	4
		0.00%	0.00%	50.00%	0.00%	0.00%	50.00%	100.00%
<i>Chi Square(10)10.3</i>	Total	0	4	50	4	2	8	68
<i>p-value=0.41</i>		0.00%	5.88%	73.53%	5.88%	2.94%	11.76%	100.00%

Table C-34. CP: Opinion on End Time for Information Exchange in Advance of Any Trial								
		In your opinion, does the information exchange (discovery) in advance of any trial end:						
		too early	a little early	just right	a little late	too late	not applicable to my experience	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	0	8	28	4	2	4	46
		0.00%	17.39%	60.87%	8.70%	4.35%	8.70%	100.00%
	Solicitor for DOL	0	2	8	4	2	2	18
		0.00%	11.11%	44.44%	22.22%	11.11%	11.11%	100.00%
	Employee Representative (attorney, Union, and other)	0	2	0	0	0	2	4
		0.00%	50.00%	0.00%	0.00%	0.00%	50.00%	100.00%
<i>Chi Square(10)9.23</i>		0	12	36	8	4	8	68
<i>p-value=0.51</i>	Total	0.00%	17.65%	52.94%	11.76%	5.88%	11.76%	100.00%

Table C-35. MSP: Preference for Trial Over Mandatory Settlement Part					
		I would have preferred a trial over a mandatory settlement conference.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	6	16	22	44
		13.64%	36.36%	50.00%	100.00%
	Solicitor for DOL	5	4	10	19
		26.32%	21.05%	52.63%	100.00%
	Employee Representative (attorney and Union)	2	5	3	10
		20.00%	50.00%	30.00%	100.00%
<i>Chi Square</i> (4)2.32		13	25	35	73
<i>p-value</i> =.23	Total	17.81%	34.25%	47.95%	100.00%

Table C-36. MSP: Opinion on Probability of Settlement Without Help of Judge					
		The case probably would not have settled without the help of the judge.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Settlement Part case	Employer Representative (attorney and non-attorney)	21	13	9	43
		48.84%	30.23%	20.93%	100.00%
	Solicitor for DOL	11	6	2	19
		57.89%	31.58%	10.53%	100.00%
	Employee Representative (attorney and Union)	7	2	2	11
		63.64%	18.18%	18.18%	100.00%
<i>Chi Square</i> (4)2.04		39	21	13	73
<i>p-value</i> =0.72	Total	53.42%	28.77%	17.81%	100.00%

Table C-37. CP: Preference for Conventional Proceedings over Mandatory Settlement					
		I would have preferred engaging in formal settlement processes before a settlement judge.			
		Strongly Agree, Agree	Neither Agree nor Disagree	Disagree, Strongly Disagree	Total
Role in most recent Conventional Case	Employer Representative (attorney and non-attorney)	14	18	14	46
		30.43%	39.13%	30.43%	100.00%
	Solicitor for DOL	6	10	2	18
		33.33%	55.56%	11.11%	100.00%
	Employee Representative (attorney, Union, and other)	2	2	0	4
		50.00%	50.00%	0.00%	100.00%
<i>Chi Square(4)4.32</i>		22	30	16	68
<i>p-value=0.36</i>	Total	32.35%	44.12%	23.53%	100.00%

Appendix C-1: Technical Appendix for Survey Analysis and Cross-Tabulations

Chi-Square

Pearson's Chi-square test for independence for a correlation table (also called a contingency table) tests the null hypothesis that the row classification factor and the column classification factor are independent.

The Chi-Square compares the observed frequencies to the expected frequencies for categories. The chi-square test statistic is basically the sum of the squares of the differences between the observed and expected frequencies, with each squared difference divided by the corresponding expected frequency

The Chi-Square value for the cell is computed as:

$$(\text{Observed Value} - \text{Expected Value})^2 / (\text{Expected Value})$$

When the probability is .05 or less, we reject the null hypothesis of no difference and conclude that there must be a relationship between the variables.

Merged categories

The decision to merge categories has a basis in the literature but also motivated by statistics. Before merging categories some tables had zero responses in cells. When no observations appear in a particular row category (row total is 0) or a particular column category (column total is 0), the chi-square statistic cannot be calculated. To proceed, the category must be either eliminated completely, or combined with another category.

Also, as with most statistical tests, the power of the chi-square test increases with a larger number of observations. If there are too few observations, it may be impossible to reject the null hypothesis even if it is false.

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