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**Criteria by which ad hoc labor arbitrators are selected by union  
and management advocates in the petroleum refining industry**

**Wayland, Robert Franklin, Ph.D.**

**University of North Texas, 1990**

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Wayland, Robert F., Criteria by Which Ad Hoc Labor Arbitrators Are Selected by Union and Management Advocates in the Petroleum Refining Industry. Doctor of Philosophy (Management), August, 1990, 98 pp., 10 tables, 1 illustration, bibliography, 36 titles.

A non-experimental, descriptive study was conducted to examine the criteria by which ad hoc labor arbitrators are selected in the petroleum refining industry. Three factors -- arbitrator background, recognition, and arbitration practice -- were examined to determine their relative importance to advocates selecting ad hoc labor arbitrators. The population of the study consisted of management and labor union advocates in the petroleum refining industry who routinely select ad hoc labor arbitrators.

Participating management and union advocates completed a questionnaire used to gather respondents' evaluations of criteria considered in the selection of ad hoc arbitrators. Responses to statements designed for measuring relative importance of the criteria considered were recorded. Descriptive statistics, discriminant analysis, and tests of significance were used in the treatment of the data.

The central hypothesis that ad hoc labor arbitrator acceptability to management and union advocates in the petroleum refining industry is determined by like

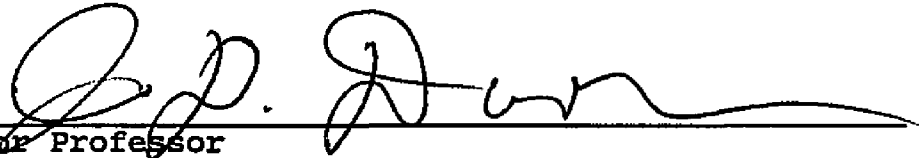
considerations of the three major factors was rejected. The results of this study indicated that management advocates consider arbitrators' background factors and recognition factors to be more important than do union advocates in ad hoc arbitrator selection. The results also indicated that union advocates consider arbitrators' arbitration practice factors to be more important than do management advocates in ad hoc arbitrator selection.

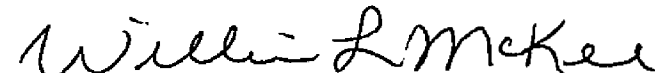
Secondary findings of the study revealed that management advocates are more willing to select arbitrators who charge higher daily fees than are union advocates. Management advocates also indicated a greater tendency than union advocates to use an arbitrator qualification reporting service to gain more information about arbitrators listed on a specific panel. A majority of the advocate respondents indicated an age preference for ad hoc arbitrators in the 50-59 age group. The advocates indicated very little preference for ad hoc labor arbitrators under the age of forty or over the age of seventy.

CRITERIA BY WHICH AD HOC LABOR ARBITRATORS ARE  
SELECTED BY UNION AND MANAGEMENT ADVOCATES  
IN THE PETROLEUM REFINING INDUSTRY


Robert F. Wayland, B.S., M.A.

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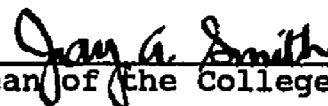
  
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CRITERIA BY WHICH AD HOC LABOR ARBITRATORS ARE  
SELECTED BY UNION AND MANAGEMENT ADVOCATES  
IN THE PETROLEUM REFINING INDUSTRY

DISSERTATION

Presented to the Graduate Council of the  
University of North Texas in Partial  
Fulfillment of the Requirements

For the Degree of  
DOCTOR OF PHILOSOPHY

By

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August, 1990

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## CHAPTER I

### INTRODUCTION

Labor arbitration is an established process for resolving labor-management disputes under a collective bargaining agreement. In labor arbitration, the parties in a dispute agree to the final, binding decision of a mutually accepted arbitrator informed in the basic tenets of labor law, rather than to the decisions of a court of law. In its 1960 "Steelworkers Trilogy" decision, the United States Supreme Court established the arbitration process as preferable to alternative actions -- such as strikes, slow downs, work stoppages, and court proceedings -- in promoting labor-management peace.<sup>1</sup>

Arbitration is distinguished from courtroom proceedings in that the parties involved in a dispute have wide latitude in selecting the arbitrator. In what is known as "rights" arbitration, the company and the union establish a set process for arbitrating grievances or disputes. Although the arbitration clause of such a collective bargaining agreement may vary slightly from one agreement to another, the clause generally outlines the means for processing any

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<sup>1</sup>United Steelworkers v. American Manufacturing Co., 363 U.S. 564 (1960); United Steelworkers v. Warrior and Gulf Navigation Co., 363 U.S. 574 (1960); United Steelworkers v. Enterprise Wheel & Car Corp., 363 U.S. 593 (1960).

grievance through several appeals steps that eventually arrive at the arbitration stage. As part of the arbitration clause of a collective bargaining agreement, disputants agree on a procedure for the selection of an impartial party to serve as arbitrator. This impartial, third party - the arbitrator - then hears and decides upon the arguments that have been prepared and presented by advocates of the parties in dispute.

In "ad hoc" arbitration, a different arbitrator is required for each dispute or for a limited number of disputes. An ad hoc arbitration process involves the selection of an arbitrator from a list or panel of arbitrators' names. Specifically, representatives of each party in a dispute alternatively strike names of unacceptable arbitrators from a list or panel of names furnished by an outside organization for each given dispute. The use of an ad hoc arbitrator is generally preferred by parties having less frequent arbitrations. Advantages of using an ad hoc arbitrator include lower procedural costs, the ability to select arbitrators with special qualifications, and less likelihood that bias will exist in favor of a particular party.<sup>2</sup>

In other grievance cases, where the parties are involved in more frequent arbitrations, a permanent arbitrator, or umpire, is used. The permanent arbitrator, as

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<sup>2</sup>Frank Elkouri and Edna Asper Elkouri, How Arbitration Works, 4th ed. (Washington, DC: Bureau of National Affairs, 1985), 119.

distinguished from the ad hoc arbitrator, is selected to hear and resolve disputes between the parties over the life of the contract or for some other designated period of time. The permanent arbitrator is usually selected through the use of a panel of arbitrators furnished by an outside agency. This permanent arbitrator then serves the parties as long as he or she is acceptable to both parties.

Since the parties involved in labor arbitration want arbitrators who are impartial, experienced, and knowledgeable of labor-management relations, they typically request panels of arbitrators from established public or private organizations. The two organizations most often used in private sector agreements are the American Arbitration Association (AAA), a private non-profit organization, and the Federal Mediation and Conciliation Service (FMCS), an agency established by law.<sup>3</sup>

Upon request by the parties, these organizations furnish a panel or a listing of a stipulated number of arbitrators along with some information about each arbitrator's qualifications. Using any mutually acceptable procedure, the parties are then able to select from the panel an arbitrator to hear and decide the grievance.

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<sup>3</sup>Herbert G. Heneman III and Marcus H. Sandver, "Arbitrators' Backgrounds and Behavior," Journal of Labor Research 4.2 (Spring 1983): 115-124.



### Ad Hoc Arbitration in the Petroleum Refining Industry

The Oil, Chemical, and Atomic Workers (OCAW) international union represents more than 40,000 workers in the production, refining, petrochemical, and transportation segments of the oil industry.<sup>4</sup> More than 25,000 of those workers represented by the OCAW are employed in the refining industry, and more than one-half of the present operating petroleum refining capacity in the United States is in refineries operated by OCAW members.<sup>5</sup> Thus, refinery workers covered under OCAW bargaining agreements represent a significant number of all bargaining unit employees in the U.S. petroleum refining industry. Of the approximately 9,000 U.S. refinery workers that are covered by contracts other than OCAW labor agreements,<sup>6</sup> about two-thirds are represented by other labor unions such as the International Union of Operating Engineers (IUOE) and the International Brotherhood of Teamsters (IBT). Some refinery workers are covered under independent union labor agreements and, approximately 5,000 U.S. refinery workers are not unionized. Almost all of the collective bargaining agreements in the union-represented petroleum refineries have arbitration clauses. Most of the OCAW labor agreement arbitration

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<sup>4</sup>Bob Williams, "Toting Familiar Demands, OCAW Faces Uphill Fight in Negotiations," Oil and Gas Journal 85.51 (December 1987): 14-16.

<sup>5</sup>Ibid.

<sup>6</sup>Ibid.

clauses and many of the other labor agreement arbitration clauses provide for ad hoc arbitrators in resolving disputes. Ad hoc arbitration systems are prevalent in the petroleum refining industry as the preferred method of labor-management dispute resolution.

The typical process for selection of the ad hoc arbitrator consists of first obtaining a panel of arbitrators (generally containing an odd number of arbitrators' names) from a mutually agreed upon organization that provides such services, usually the FMCS or AAA. Then the advocates or representatives of both the union and management individually rank the arbitrators in order of preference based upon their own objective and subjective considerations of available information. The individual rankings of the company and the union are commonly referred to as the "strike order." Ultimately, the advocates or representatives meet and alternatively strike arbitrators names with the outcome that one mutually acceptable arbitrator remains to be appointed as the neutral third-party.

#### Statement of the Problem

The problem prompting this study was to determine the important considerations of union and management advocates in selecting ad hoc labor arbitrators in the petroleum refining industry. During the selection process for an impartial ad hoc arbitrator, each advocate in a labor

dispute considers a number of objective and subjective characteristics and behaviors known about the available arbitrators. The advocates then make decisions concerning the acceptability of each arbitrator for resolving the dispute. The advocates, however, often involve themselves in the decision-making process for arbitrator selection with very limited information about the arbitrators. Furthermore, the advocates' desire to receive a favorable decision by the arbitrator most likely influences their judgment concerning the type of information needed to determine the acceptability of a particular arbitrator.

#### Purpose of the Study

The purpose of this study was to examine the criteria that union and management advocates in the petroleum refining industry consider in selecting ad hoc arbitrators. More specifically, the focus of the study was to examine three major factors thought to influence industry advocates in their selection of ad hoc arbitrators. Further, the study was to investigate whether advocates diverged in their opinions of the relevancy of certain information in determining arbitrator acceptability. A model or theoretical framework explaining the process of ad hoc labor arbitrator selection was explored.

#### Model of Ad Hoc Arbitrator Selection Process

The criteria found to be important to advocates considering the acceptability of ad hoc arbitrators during

the selection process are categorized into three groups: background factors, recognition factors, and arbitration practice factors. These factors and the criteria identified in each factor are set forth in the model shown in Figure 1.

The three factors shown in the model were adapted from a study by Briggs and Anderson<sup>7</sup> defining three sets of independent variables which seem to be important in explaining acceptability of arbitrators; background variables, visibility variables, and arbitration practice variables. Background factors are those general characteristics of arbitrators that are readily available to the union and management advocates or representatives. Information in the form of biographical data sheets are furnished to the advocates by the outside agency supplying panels of arbitrators. Visibility variables, or recognition factors, represent the criteria that lead to the advocates' remembrance of an arbitrator, whether positive or negative, when his or her name appears on a panel.

Arbitration practice factors are the criteria that result from such practices as the manner in which an arbitrator conducts an arbitration hearing, the level of fees charged by the arbitrator, the arbitrator's logic or reasoning in arriving at a decision, and the perceived style and tone expressed by an arbitrator in his or her written

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<sup>7</sup>Steven S. Briggs and John C. Anderson, "An Empirical Investigation of Arbitrator Acceptability." Industrial Relations 19.2 (Spring 1980): 163-174.

awards or decisions. Obviously, the arbitrator has some direct control over certain factors leading to his or her recognition; for example, he or she may speak at labor-management conferences, conduct educational programs and seminars, publish articles and books on labor arbitration, and publish arbitration awards. Further, the information about background and arbitration practice factors available to the advocates may indirectly affect the recognition factors. The advocates may, for instance, recognize an arbitrator's name simply based upon information obtained from colleagues, associates, or some reporting services.

The model in Figure 1 illustrates how the advocates or representatives of the parties to a dispute draw upon all the information available about each arbitrator listed in a specific panel. Each advocate then assesses the available information about the arbitrators pertaining to the three factors considered important in determining arbitrator acceptability. Based upon the advocates' appraisals of the arbitrators listed on the panel, individual striking orders or ranks based upon preferential acceptability are determined. The advocates then use their striking orders for the alternative elimination of less desirable arbitrators, resulting in the selection of a single ad hoc arbitrator who is deemed acceptable to the parties.

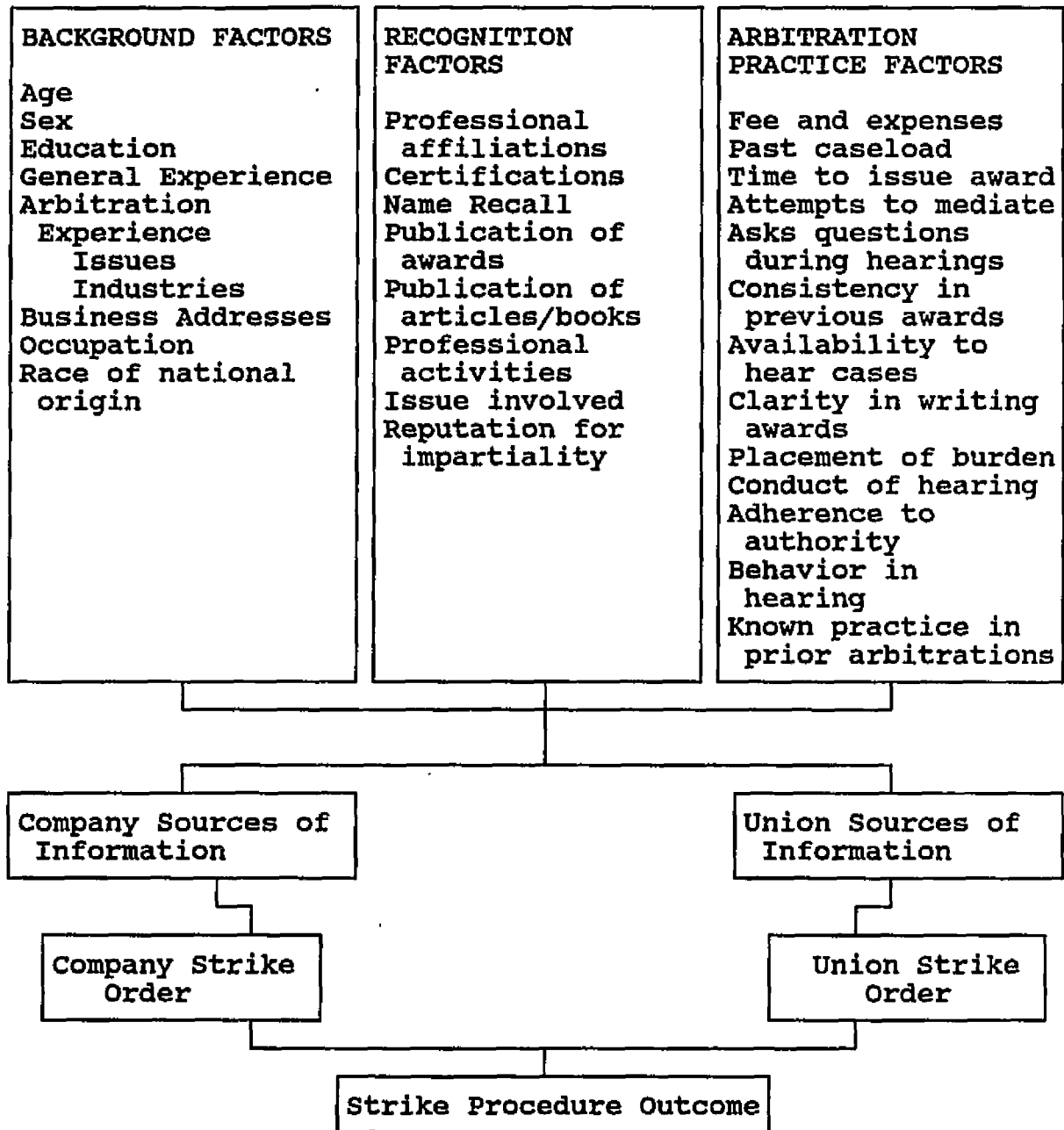


Fig. 1. Model of ad hoc labor arbitrator selection process.

### Hypothesis

Advocates or representatives of both the company and the union desire the best arbitrator for their case - one who will grant a favorable arbitration award. Clearly, the advocates evaluate numerous criteria in judging ad hoc arbitrator acceptability during the selection process. Consideration of three major factors deemed to be important in determining ad hoc arbitrator acceptability in the petroleum refining industry is the basis for the central hypothesis of this study:

Hypothesis: In the process of selecting an ad hoc labor arbitrator to meet their needs in a dispute, both management and union advocates consider the arbitrator's background factors, recognition factors, and arbitration practice factors.

### Research Questions

The following research questions were addressed in this study:

Research Question #1: Are there significant differences regarding importance of factors considered in ad hoc labor arbitrator selection between company and union advocates in the petroleum refining industry?

Research Question #2: Do decision-makers in a dispute believe that having more information on specific factors in ad hoc labor arbitrator selection will improve their chances of winning arbitration cases?

### Significance of the Study

The proposed study focused on investigating and analyzing criteria considered important in the selection of ad hoc arbitrators for resolving labor disputes in the petroleum refining industry. The major factors considered important for selection of ad hoc labor arbitrators were determined and evaluated by experienced advocates in the petroleum refining industry. Previous studies of ad hoc labor arbitrator acceptability have been largely anecdotal, with the results of empirical studies generally mixed regarding the important factors considered in ad hoc labor arbitrator selection. The significance of this study was to identify the important factors considered by union and management advocates in judging the acceptability of ad hoc labor arbitrators in a particular industry, the petroleum refining industry. This study also served to determine significant differences regarding the relative importance of the factors considered for ad hoc labor arbitrator selection between company and union advocates in the petroleum refining industry. In addition, this study attempted to demonstrate whether or not the company and union advocates believe that greater availability of information about ad hoc arbitrators in the selection process would contribute to a greater probability of winning a case.



### Research Methodology and Design

The proposed study utilized a non-experimental, descriptive method of research. The population of the study was comprised of company advocates and labor union advocates in the petroleum refining industry who select ad hoc labor arbitrators. This particular industry population was chosen for the study since ad hoc labor arbitration is the predominant form of third-party dispute resolution used in that industry.<sup>8</sup> Company advocates were considered to include attorneys who are members of the company's legal staff, private attorneys hired by the company to represent it in a particular arbitration, and non-attorney officials of the company who represent management in arbitration proceedings. Union advocates were considered to include attorneys who are members of the union's legal staff, private attorneys hired by the union to represent it in a particular arbitration, and non-attorney international representatives, business agents, district directors, or other union officials who represent unions in arbitration proceedings.

#### Sample

Judgment sampling was used in this study. The sample included both petroleum refining company and labor union officials and their respective attorneys, all of whom make

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<sup>8</sup>Pat R. Wrigley, Director of Administration of the National Petroleum Refiners Association, Washington, DC, telephone interview with the author, 9 May 1989.

decisions concerning the selection of ad hoc labor arbitrators. The company and union advocates or representatives who composed the sample are routinely involved in ad hoc labor arbitration and are considered knowledgeable of the criteria weighed in determining arbitrator acceptability.

#### Measurement of the Data

Data was collected by a mail questionnaire which gathered respondents' evaluations of criteria considered to be important in selecting ad hoc labor arbitrators in the petroleum refining industry. Questions were composed of statements designed to measure the relative importance of criteria considered in choosing ad hoc arbitrators for the resolution of labor disputes.

#### Treatment of the Data

The frequency of responses to questions was determined by descriptive statistics. Measures of central tendency for the distributions of data were computed. Discriminant analysis was utilized in evaluating the management and union advocates' responses to the factors deemed important in the selection of ad hoc arbitrators. Tests of significance were used to determine significant statistical differences between company and union responses.

#### Limitations of the Study

The study was limited by the generally recognized limitations of a questionnaire technique for data

collection. The use of mailed questionnaires to collect data is limited to opinions, preferences, and facts expressed by the respondents. It was assumed that the respondents understood the questions as to the intended meanings. Also, it was assumed that the respondents were competent sources of information and that they provided the information willingly and truthfully.

The use of judgment sampling in this study was another limitation. The sample included petroleum refining company and labor union officials and their respective attorneys, all of whom make decisions concerning the selection of ad hoc labor arbitrators. It was assumed that the company and union advocates or representatives who compose the sample are routinely involved in ad hoc labor arbitration and are knowledgeable of the criteria considered in determining arbitrator acceptability. However, while some advocates might be actively involved in representing a company or union in arbitration proceedings, they might have limited involvement in the selection of the ad hoc arbitrator.

In order to increase the response rate, two organizations were asked to assist and endorse the survey. The National Petroleum Refiners Association (NPRO) in Washington, D.C., has an industrial relations group which is comprised of company officials and attorneys who are actively involved in labor relations activities in the industry. The Director of Administration for the NPRO

furnished a mailing list of industrial and labor relations officials of all member petroleum refining companies. The Director also made an announcement of the pending study at the annual industrial relations conference held in June 1989. An officer with the Oil, Chemical and Atomic Workers International Union (OCAW) also agreed to participate in the study by distributing the mailings to union officials and attorneys who are actively involved in ad hoc arbitration. The OCAW officer also agreed to request that union respondents return the questionnaires directly to the researcher.

There is limited external validity to the findings of this study. The results are not necessarily generalizable to ad hoc labor arbitrator selection procedures used in any industry. Although the participants in the current study are members of a select group of advocates who are experienced in selecting ad hoc labor arbitrators, they were selected from a population of one particular industry in which this dispute resolution process is widely used. Therefore, caution should be exercised in the extrapolation of the findings of this study to other industries.

#### Basic Assumptions

It was assumed that the respondents to the mailings were routinely involved in ad hoc labor arbitration and were knowledgeable of the criteria considered in determining arbitrator acceptability. Also, it was assumed that the

company and union advocates receiving the questionnaires answered the questions with integrity.

#### Organization of the Study

The report of this study contains five chapters. Chapter I provides the background information of the study, a model explaining the ad hoc labor arbitrator selection process, and general methodology. Chapter II contains a discussion of ad hoc labor arbitration and a survey of the literature. Chapter III describes the research methodology, including the design of the study, the population, the sample, the data collection, the measurement of the data, and the data analysis. Chapter IV presents the findings of the study. In conclusion, Chapter V contains a summary of the study with implications and recommendations.

## CHAPTER II

### REVIEW OF THE LITERATURE

This chapter will first present a discussion of some general background information regarding voluntary arbitration of grievances between management and labor. A description of the use of ad hoc arbitrators versus the use of permanent arbitrators for labor dispute resolution will be followed by a review of the literature pertaining to ad hoc labor arbitrator selection. Specifically, studies of the important criteria for ad hoc labor arbitrator selection will be reviewed.

#### Background

Arbitration has been a preferred method of labor dispute resolution for many years. Extensively employed in private sector labor disputes since the early organizing activities of the Knights of Labor in the 1800s,<sup>9</sup> arbitration is an art generated by experiential learning rather by the study of a particular body of knowledge.<sup>10</sup>

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<sup>9</sup>John A. Fossum, Labor Relations: Development, Structure, Process, 4th ed. (Homewood, IL: BPI-Irwin, 1989), 398.

<sup>10</sup>Edwin E. Witte, "The Future of Labor Arbitration: A Challenge." In The Profession of Labor Arbitration, Proceedings of the First Annual Meeting of the National Academy of Arbitrators. Washington, DC: Bureau of National Affairs, 1948, 17.

Labor arbitration, in a broad sense, involves any process of settling labor-management disputes by using a third party neutral to render a decision rather than resorting to strikes, work stoppages, or any other less peaceful means. Several features distinguish types of arbitration processes observed in labor relations practices within the United States. One such distinction is based upon whether the use of arbitration to settle a particular dispute is compulsory or voluntary. In some situations, the use of arbitration may be required either by law or by certain defined rules and regulations. Another distinction may be made as to whether the dispute involves either an issue that arose during the negotiation of a collective bargaining process (or "agreement") or an issue that arose over the interpretation of an existing agreement. Also, the third party neutral, or impartial arbitrator, may either act alone or cast the tie-breaking vote for an arbitration board in making the decision. Finally, a distinction may be made regarding whether the impartial arbitrator is selected on an ad hoc basis for each arbitration case or whether the arbitrator is selected to serve as a more or less permanent umpire for a specified period of time.

Arbitration processes in labor relations are primarily distinguished by the kinds of disputes to be resolved, either "rights" or "interests" disputes. An arbitrator asked to resolve a conflict that arises in negotiating the

terms of a collective bargaining agreement is involved in an interest dispute. An arbitrator resolving a feud over the interpretation of an existing collective bargaining agreement is engaged in a rights dispute. Rights dispute arbitrations are more commonly referred to as grievance arbitrations since final and binding arbitration is typically the last step of the grievance process in labor contracts.

Further, the nature of how the arbitration process is conducted can differ somewhat depending upon whether a dispute occurs in the public sector or in private sector employment. The growth of unionization in the public sector has brought about an increase in the use of arbitration for resolving disputes in public employment even though strikes are generally prohibited in that sector. However, arbitration is more likely to become compulsory by statute for state and federal employees, whereas private sector employers and unions are generally very much opposed to compulsory arbitration.<sup>11</sup> Under the Civil Services Reform Act of 1978, the Federal Services Impasses Panel can mandate arbitration for federal employees, and arbitration can become compulsory for postal service employees under the Postal Reorganization Act of 1970.<sup>12</sup> In the private sector,

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<sup>11</sup>Frank Elkouri and Edna Asper Elkouri, How Arbitration Works, 4th ed. (Washington, DC: Bureau of National Affairs, 1985), 14.

<sup>12</sup>Ibid., 15.



voluntary arbitration is generally the preferred dispute resolution process agreed upon by labor contracts between the parties. However, there is no legislation that mandates arbitration in the private sector for labor dispute resolution.<sup>13</sup> The most significant federal statute that governs the collective bargaining for arbitration agreements, as well as other labor-management conditions, in the private sector is the Labor Management Relations Act of 1947.<sup>14</sup> A 1976 study by the Bureau of Labor Statistics (BLS) of the United States Department of Labor found that more than 95 percent of the private sector labor agreements provided for voluntary grievance arbitration.<sup>15</sup> An earlier study conducted by the Department of Labor determined that more than 80 percent of the labor agreements in the survey provided for selection of an arbitrator on an ad hoc basis.<sup>16</sup>

#### Ad Hoc Labor Arbitration

The use of rights or grievance arbitration became more extensively used in settling labor disputes in the United States under the National War Labor Board during World War

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<sup>13</sup>Fossum, 389.

<sup>14</sup>Elkouri and Elkouri, 26.

<sup>15</sup>Ibid., 6.

<sup>16</sup>U.S. Department of Labor, Major Collective Bargaining Agreements: Arbitration Procedures, U.S. Department of Labor Bulletin, no. 1425-6 (1966): 33.

II.<sup>17</sup> Ad hoc labor arbitration is the more common arbitration process found in private sector collective bargaining agreements.<sup>18</sup> A unique characteristics of ad hoc labor arbitration that makes it a preferred method of settling labor disputes is the selection of the third party adjudicator for each dispute. Further, under agreements calling for ad hoc labor arbitration, the disputants have considerable control over arbitrator selection. From a list of arbitrators provided by a designated agency, disputants are able to remove the names of any unacceptable arbitrators through the use of the striking process. The impartial third party under an ad hoc labor arbitrator agreement is typically selected by representatives or advocates for the parties involved in a dispute within guidelines provided in the collective bargaining agreement. The appointment of the ad hoc labor arbitrator usually terminates when his or her opinion and award is issued to resolve the dispute. If any advocate of either of the parties to a dispute deems a particular arbitrator as unacceptable for dispute resolution proceedings, that advocate may be able to eliminate that arbitrator from consideration in the selection process.

The permanent arbitrator provision is quite common in labor agreements negotiated in such industries as automobiles, aircraft, meat-packing, steel, rubber, apparel,

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<sup>17</sup>Elkouri and Elkouri, 15.

<sup>18</sup>Fossum, 405.

and transportation equipment.<sup>19</sup> However, petroleum refining is one particular industry in which most collective bargaining agreements provide for selection of arbitrators on an ad hoc basis. More than 95 percent of the contracts with the Oil, Chemical and Atomic Workers International Union (OCAW) contain ad hoc labor arbitrator provisions.<sup>20</sup> Approximately 65 percent of the refinery workers in U.S. petroleum refineries are covered by OCAW contracts,<sup>21</sup> and the OCAW represents better than 75 percent of the union-represented workers in the U.S. petroleum refining industry.<sup>22</sup> Other international unions that represent most of the other organized refinery workers are the International Union of Operating Engineers (IUOE) and the International Brotherhood of Teamsters (IBT).

The petroleum refining company advocates may be attorneys who are members of the company's legal staff, private attorneys hired by the company to represent it in a particular arbitration, or non-attorney officials of the company who represent management in arbitration proceedings.

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<sup>19</sup>Elkouri and Elkouri, 122.

<sup>20</sup>Dean T. Alexander, Assistant to the President of the Oil, Chemical and Atomic Workers International Union, AFL-CIO, telephone interview with the author, 9 May 1989.

<sup>21</sup>G. Alan Petzet, "Hard Times Set Background For OCAW, Oil Firm Contract Talks," Oil & Gas Journal 81 (November 1983): 62.

<sup>22</sup>Ray Campbell, District Director of the Oil, Chemical and Atomic Workers International Union, AFL-CIO, telephone interview with the author, 2 June 1989.

Union advocates may be attorneys who are members of the union's legal staff, private attorneys hired by the union to represent it in a particular arbitration, or non-attorney officials of the union who represent it in arbitration proceedings. The Oil, Chemical and Atomic Workers International Union is generally represented by non-attorney international representatives and district directors experienced in labor arbitration.<sup>23</sup>

#### Prior Studies

The literature on ad hoc labor arbitrator selection is replete with anecdotal reports, most of which describe the importance of the third party neutrals becoming "acceptable" to the parties in a dispute. However, this literature does not well explain particular characteristics or criteria that make some arbitrators more acceptable than others to the parties involved. Some reports present the view that arbitrators are influenced by the consequences of awards when they consider the continued acceptability of an arbitrator to the parties. Meyer S. Ryder<sup>24</sup> disagrees with this view, and asserts that it is primarily an arbitrator's competence and impartiality that assures continued

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<sup>23</sup>Campbell, interview.

<sup>24</sup>Meyer S. Ryder, "The Impact of Acceptability on the Arbitrator," in Developments in American and Foreign Arbitration, Proceedings of the 21st Annual Meeting of the National Academy of Arbitrators (Washington, DC: Bureau of National Affairs, 1968), 107-108.

acceptance by both parties in labor disputes. While the research on the specific criteria considered important in labor arbitrator acceptability is limited, and although results of the scant empirical studies are rather mixed, some of the research in this area is certainly worthy of reference. A study conducted by Kauffman and McKee,<sup>25</sup> for example, examined the market demand for labor arbitrators. Their report focused on consumer demand theory as it applied to the "buying" of labor arbitrator services. The study found that three effects of consumer demand tend to determine the selection of arbitrators. Those effects, first identified by economist Harvey Liebenstein in 1950, describe consumers who (1) like to be "in style" (Bandwagon), (2) like to attain something exclusive (Snob), and (3) are concerned with "conspicuous consumption" (Veblen).<sup>26</sup>

A review of the few existing studies on ad hoc labor arbitrator acceptability reveals a general use of two strategies or methodologies. One strategy involves the use of archival data to examine criteria by which ad hoc labor arbitrators are selected. Another strategy found in these studies includes opinion surveys of labor arbitrators on the importance of certain criteria for their acceptance by the

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<sup>25</sup>Nancy L. Kauffman and William L. McKee, "Labor Arbitrator Selection and the Theory of Demand," The Arbitration Journal 42.1 (March 1987): 42.

<sup>26</sup>Ibid., 36.

parties. Very few studies, however, have obtained responses from the union and company advocates who routinely select ad hoc labor arbitrators, to questions concerning what makes particular arbitrators more acceptable than others.

Some criteria found to be important in determining ad hoc labor arbitrator acceptability during the selection process are categorized into three groups: background factors, recognition factors, and arbitration factors. These three major factors are based upon similar classifications found in the study conducted by Briggs and Anderson.<sup>27</sup> The researchers in this study identified several characteristics, found in the literature on arbitration, that seem to be important in explaining acceptability of arbitrators. The following discussion examines the literature concerning the three major factors considered important for selection of ad hoc labor arbitrators in the current study.

#### Background Factors

Results of prior studies conducted to determine the importance of arbitrators' biographical, educational, and experiential characteristics, typically described as background factors, are mixed. Primeaux and Brannen<sup>28</sup> found

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<sup>27</sup>Steven S. Briggs and John C. Anderson, "An Empirical Investigation of Arbitrator Acceptability," Industrial Relations 19.2 (Spring 1980): 164.

<sup>28</sup>Walter J. Primeaux and Dalton E. Brannen, "Why Few Arbitrators Are Deemed Acceptable," Monthly Labor Review 98.9 (September 1975): 29.

the age criteria unimportant in selecting ad hoc labor arbitrators. The study conducted by Briggs and Anderson<sup>29</sup> concluded that relationships between background variables, which included age, and arbitrator acceptability as determined by caseload were weak. Lawson,<sup>30</sup> in another study of factors affecting selection of ad hoc arbitrators, found age to be relatively unimportant. This study consisted of 30 labor arbitrators and 36 labor advocates completing questionnaires on standards applied in arbitrator selection. Lawson explained that advocates placed a great deal of importance on the "real world" experience of arbitrators but that other factors relating to experience, such as age, were not shown to be important. An archival study by Heneman and Sandver of potential relationships between arbitrator biographical information and observed arbitrator behavior based upon outcome of the cases also provided little support that age is important.<sup>31</sup>

Interestingly, two studies on ad hoc arbitrator selection found that arbitration experience, which is a logical function of an arbitrator's age, is an important criterion in arbitrator acceptability. Rezler and

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<sup>29</sup>Briggs and Anderson, 167.

<sup>30</sup>Eric W. Lawson, Jr., "Arbitrator Acceptability: Factors Affecting Selection," The Arbitration Journal 36.4 (December 1981): 27.

<sup>31</sup>Herbert G. Heneman, III and Marcus H. Sandver, "Arbitrators' Backgrounds and Behavior," Journal of Labor Research 4.2 (Spring 1983): 121.

Petersen<sup>32</sup> interviewed 26 labor and management advocates who regularly selected arbitrators. They concluded that advocates weigh experience and expertise of a potential arbitrator more than any other factor. Respondents strongly emphasized that arbitration experience was of utmost importance in selection of arbitrators for almost any type of case. A study conducted by Nelson and Curry<sup>33</sup> concluded that age and arbitration experience were the most important factors in selecting arbitrators. Under the direction of this study, 74 labor arbitrators read the transcript of an arbitration hearing, and then completed a questionnaire and recorded their findings on the case.

Although some studies have found that, in general, arbitrator background factors are weakly linked to arbitrator acceptability, one study specifically examined the impact of sex on the ad hoc labor arbitrator selection process. Petersen and Katz<sup>34</sup> reported that the majority of the respondents did not perceive important obstacles to women being accepted as arbitrators. However, approximately a third of the respondents felt that female arbitrators are

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<sup>32</sup>Julius Rezler and Donald J. Petersen, "Strategies of Arbitrator Selection," Daily Labor Report, 26 June 1978, D1.

<sup>33</sup>Nels E. Nelson and Earl M. Curry, Jr., "Arbitrator Characteristics and Arbitral Decisions," Industrial Relations 20.3 (Fall 1981): 316.

<sup>34</sup>Donald J. Petersen and Marsha Katz, "Male and Female Arbitrator Perceptions of the Arbitration Process," Labor Law Journal 39.2 (February 1988): 118.



discriminated against by the parties in the field of arbitration. In interviews conducted by Rezler and Petersen<sup>35</sup> during their study of arbitrator selection, 26 company and union advocates were asked if they would object to female arbitrators. Eight advocates indicated that the gender of potential arbitrators would make no difference in their selection and five advocates side-stepped the question by stating that they had never been involved in a case with a female arbitrator. Ten of the advocates interviewed raised some objections to selecting female arbitrators, with some commenting that females might be considered depending upon the type of case involved. Three of the advocates interviewed flatly ruled out selecting female arbitrators.

Lawson<sup>36</sup> found that 60 percent of the males involved in a study of factors affecting arbitrator acceptability felt that sex is unimportant in arbitrator selection. However, 75 percent of the females in the study felt that the criterion of sex was an important consideration in arbitrator selection. A similar discrepancy between the responses of male and female participants was found to exist for questions about whether ethnic characteristics affected arbitrator selection. However, both groups indicated that

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<sup>35</sup>Rezler and Petersen, D-6.

<sup>36</sup>Lawson, 27.

race or national origin of the arbitrator was relatively unimportant for selection when compared to other criteria.<sup>37</sup>

Advocates in Lawson's study<sup>38</sup> considered the formal education of an arbitrator to be an important criterion for arbitrator selection, but labor arbitrators involved in the study felt that formal education was relatively unimportant. The results of this study also indicated that arbitrators who are attorneys have a slightly higher chance of being selected when their names appear on panels with names of non-attorneys. Primeaux and Brannen<sup>39</sup> determined that both education and arbitration as a full-time occupation are important criteria in selection of ad hoc arbitrators. Bloom and Cavanagh<sup>40</sup> conducted an archival study on observed advocates' preferences for different arbitrators in a public sector arbitration system. They also found education and the occupation of labor arbitrators to be important criteria in the selection process.

In contrast to the aforementioned studies, Nelson and Curry<sup>41</sup> concluded from the results of their study that education and occupation are relatively unimportant if the

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<sup>37</sup>Ibid., 26.

<sup>38</sup>Ibid., 27.

<sup>39</sup>Primeaux and Brannen, 28.

<sup>40</sup>David E. Bloom and Christopher L. Cavanagh, "An Analysis of the Selection of Arbitrators," The American Economic Review 76.3 (June 1986): 421.

<sup>41</sup>Nelson and Curry, 316.

sole consideration of the advocates is to win the arbitration case. Rezler and Petersen<sup>42</sup> found that the importance of education and occupation criteria on ad hoc arbitrator selection varied considerably with the advocates interviewed. Their study also found that an arbitrator's business address or location in relation to the site of the arbitration hearing was not an important consideration in arbitrator selection.

Overall, considering the importance of background factors in the selection process for ad hoc labor arbitrators, the criterion found to be of significance in most studies is arbitration experience. Fleming<sup>43</sup> concluded in an early study that experience in arbitration may not necessarily make a difference in an arbitration award. In that study, a comparison of awards by experienced arbitrators was made with those of third-year law students in simple cases involving contract interpretation issues. The study found that there was little difference in the awards.<sup>44</sup>

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<sup>42</sup>Rezler and Petersen, D-6.

<sup>43</sup>Robbin W. Fleming, The Labor Arbitration Process (Urbana, IL: University of Illinois Press, 1965), 7.

<sup>44</sup>Ibid., 80-83.

Another early study conducted by Westerkamp and Miller<sup>45</sup> concluded that labor attorneys may not be able to distinguish between experienced and inexperienced arbitrators by reading awards. The study was conducted with two experienced and two inexperienced labor arbitrators writing arbitration awards on the same case. A group of company and union labor attorneys evaluated awards to determine if they had been written by an experienced or inexperienced arbitrator. The labor attorneys were unable to identify whether the awards had been written by experienced or inexperienced arbitrators.<sup>46</sup>

Primeaux and Brannen<sup>47</sup> found strong support for a general opinion that advocates much prefer labor arbitrators who have strong arbitration experience. Rezler and Petersen<sup>48</sup> determined that arbitration experience is the single most important criterion in ad hoc labor arbitrator selection. Studies conducted by Nelson and Curry,<sup>49</sup> Bloom and Cavanagh,<sup>50</sup> and Petersen and Katz<sup>51</sup> all found experience

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<sup>45</sup>Patrick R. Westerkamp and Allen K. Miller, "The Acceptability of Inexperienced Arbitrators: An Experiment," Labor Law Journal 22.12 (December 1971): 763-770.

<sup>46</sup>Ibid., 768.

<sup>47</sup>Primeaux and Brannen, 29.

<sup>48</sup>Rezler and Petersen, D-6.

<sup>49</sup>Nelson and Curry, 316.

<sup>50</sup>Bloom and Cavanagh, 421.

<sup>51</sup>Petersen and Katz, 119.

in arbitration to be an important criterion in selection of ad hoc labor arbitrators.

#### Recognition Factors

Meyer Ryder,<sup>52</sup> in an address to the National Academy of Arbitrators in 1968, declared that labor arbitrators must be known to the parties who use their services in order to be selected. Arbitrators can, Ryder suggested, increase their visibility or name recognition in such ways as joining professional affiliations, participating in professional activities, achieving certification in professional societies, publishing arbitration awards, publishing journal articles and books on labor relations topics, and conducting training programs or conferences in labor relations.

Most of the studies conducted to determine the relative importance of recognition factors in arbitrator acceptability suggest that these criteria are highly considered in the selection process for ad hoc labor arbitrators. Primeaux and Brannen<sup>53</sup> found support of a general view that the number of published awards significantly affects the selection of ad hoc arbitrators. This study also reported, however, that specific professional affiliations appear to be relatively unimportant in ad hoc arbitrator selection. Rezler and

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<sup>52</sup>Ryder, 95-96.

<sup>53</sup>Primeaux and Brannen, 29.

Petersen<sup>54</sup> concluded that familiarity with an arbitrator ranked third in relative importance of criteria in the initial selection of arbitrators. This study also found that the particular issue involved in a given dispute was an important consideration for arbitrator selection.

The empirical investigation conducted by Briggs and Anderson<sup>55</sup> resulted in a finding that visibility characteristics, when compared to background and arbitration practice characteristics, are most important in the selection of arbitrators. Lawson<sup>56</sup> found that the factor considered most important for determining arbitrator acceptability is name recognition. Bloom and Cavanagh<sup>57</sup> found that while advocates show distinct preferences for some arbitrators over others, there was no evidence that the advocates strategically rank the arbitrators. The study conducted by Petersen and Katz<sup>58</sup> found that male and female respondents considered membership in the National Academy of Arbitrators and the number of published awards to be important in affecting arbitrator acceptability.

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<sup>54</sup>Rezler and Petersen, D-6.

<sup>55</sup>Briggs and Anderson, 172.

<sup>56</sup>Lawson, 29.

<sup>57</sup>Bloom and Cavanagh, 421.

<sup>58</sup>Petersen and Katz, 114.

### Arbitration Practice Factors

Criteria constituting arbitration practice factors have not been as extensively investigated as criteria comprising the other two factors. Although information concerning fees and expenses is relatively easy to obtain, some of the other criteria are not so readily available. For example, information about personality and behavioral characteristics that are known to the advocates can usually be obtained only by prior dealings with an arbitrator or through some insightful information source about the arbitrators.

Rezler and Petersen found that fees and expenses had relatively little impact on arbitrator acceptability for initial selection.<sup>59</sup> They also found that an arbitrator's personality and behavior greatly affect his or her continued acceptance or rejection in future cases<sup>60</sup>. Briggs and Anderson<sup>61</sup> determined that the results of a study investigating arbitrator acceptability were inconclusive as to the importance of arbitration practice variables. Lawson found data that suggested that the size of an arbitrator's per diem fee is not an important consideration in selection,<sup>62</sup> but that advocates place great importance on an

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<sup>59</sup>Rezler and Petersen, D-6.

<sup>60</sup>Ibid., D-7.

<sup>61</sup>Briggs and Anderson, 172.

<sup>62</sup>Lawson, 26.

arbitrator's behavior and reputation for integrity<sup>63</sup>. Petersen and Katz<sup>64</sup> found evidence that male and female respondents to a study of the arbitration process believe that the conduct of fair hearings and the issue of prompt awards are important characteristics of the arbitrator who can expect continued success.

A study conducted by Crane and Miner<sup>65</sup> found evidence that company and union advocates agree on certain important criteria for describing what they term as the "good arbitrator." Their study supports a view that characteristics such as clarity in writing awards, conduct of orderly hearings, proper evaluation of testimony and evidence, and good contract interpretation abilities are essential in arbitrator acceptability by the parties. This study did find evidence to indicate that advocates find excessive fees and expenses, poor conduct of hearings, and lack of clarity in written decisions to be detrimental to arbitrators in the selection process.

#### Conclusion

The literature on ad hoc labor arbitrator acceptability indicates that three major selection factors are important

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<sup>63</sup>Ibid., 25.

<sup>64</sup>Petersen and Katz, 115-116.

<sup>65</sup>Donald P. Crane and John B. Miner, "Labor Arbitrators' Performance: Views From Union and Management Perspectives," Journal of Labor Research 9.1 (Winter 1988): 52.



in ad hoc labor arbitrator selection, although opinion varies as to the relative importance of the factors as well as of the criteria within those factors. The present study will investigate the relative importance of background, recognition, and arbitration practice factors. Chapter III presents the methodology of the current study.

## CHAPTER III

### METHODOLOGY

This chapter describes the methodology used in this study of the criteria by which ad hoc labor arbitrators are selected by union and management advocates in the petroleum refining industry. This chapter first describes the research design used in the study. Narratives discussing the population and the sample are provided, followed by explanations of the data collection procedure and the measurement of the data. The research hypothesis is then presented, and the chapter concludes with a description of the data analysis techniques used in the study.

#### Research Design

Research methods used in a study generally depend upon the nature of the information needed.<sup>66</sup> This study utilized a non-experimental, descriptive method of research. Emory<sup>67</sup> explains that the objective in a descriptive study is to learn more about characteristics associated with a population. The current research was an exploratory field study devised to examine the selection process for ad hoc

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<sup>66</sup>Vernon Clover and Howard Balsley, Business Research Methods (Columbus, OH: Grid, Inc., 1974), 49.

<sup>67</sup>C. William Emory, Business Research Methods, 3rd ed. (Homewood, IL: Richard D. Irwin, 1985), 68.

labor arbitrators in the petroleum refining industry. This particular industry was chosen because of its extensive use of ad hoc labor arbitrators for dispute resolution.<sup>68</sup>

Exploratory studies are often developed in order to gather information from persons experienced in the area of study.<sup>69</sup> The current study was designed to gather information about the ad hoc labor arbitrator selection process in the petroleum refining industry. Specifically, this study aimed to determine the relative importance placed by industry advocates on the major factors affecting advocates' acceptance of ad hoc labor arbitrators. The data used for analyses in the current study were derived by a survey of union and management advocates in the petroleum refining industry. The advocates included in the sample are experienced in the selection process for ad hoc labor arbitrators in the petroleum refining industry.

Most of the previous research on ad hoc labor arbitrator selection has involved collecting data from either archival sources or by survey questionnaires completed by labor arbitrators. Very few studies have been conducted using information gathered directly from the advocates who are actually involved in the arbitrator selection process.

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<sup>68</sup>Pat R. Wrigley, Director of Administration of the National Petroleum Refiners Association, Washington, DC telephone interview with the author, 9 May 1989.

<sup>69</sup>Ibid.

### Population

The population of the current study consisted of company advocates and labor union advocates in the petroleum refining industry who routinely select ad hoc labor arbitrators. It was assumed that the population of company advocates included attorneys who are members of the company's legal staff, private attorneys hired by the company to represent it in a particular arbitration, or non-attorney officials of the company who routinely represent management in arbitration proceedings. It was also assumed that the population of union advocates included attorneys who are members of the union's legal staff, private attorneys hired by the union to represent it in a particular arbitration, or non-attorney union officials who routinely represent unions in arbitration proceedings. The population for these two groups is comprised of a select cluster of specialists in the petroleum refining industry who have primarily attained their skills through experiential learning.<sup>70</sup>

### Sampling Technique

Judgment sampling was the technique used in this study. Kidder and Judd<sup>71</sup> explain that good judgment can be exercised in "handpicking" samples that are typical of the

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<sup>70</sup>Ibid.

<sup>71</sup>Louise H. Kidder and Charles M. Judd, Research Methods in Social Relations, 4th ed. (New York: Holt, Rinehart and Winston, 1986), 154.

population. A common strategy of judgment sampling is to select cases or observations that are judged to be typical of the population of interest, assuming that errors of judgment in the selection will tend to counterbalance each other.<sup>72</sup>

The sample used for the current study included both petroleum refining company officials and labor union officials, all of whom make decisions concerning selections of ad hoc labor arbitrators. The company and union advocates or representatives who comprised the sample are routinely involved in ad hoc labor arbitration and are knowledgeable of the criteria considered in determining arbitrator acceptability.

A copy of a survey conducted in 1988 by the National Petroleum Refiners Association of its 135 member companies was used for sampling management advocates. The survey listed the U.S. refineries with Oil, Chemical, and Atomic Worker International Union (OCAW) contracts, U.S. refineries with unions other than OCAW, and non-union U.S. refineries. The survey found that employment in U.S. refineries with OCAW contracts comprised approximately 65% of all refinery workers and more than 75% of the union-represented refinery workers. The survey also indicated that the International Union of Operating Engineers (IUOE) represented about 7% of the union-represented refinery workers. The OCAW and the

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<sup>72</sup>Ibid.

IUOE were used for judgment sampling of union advocates since both unions typically use ad hoc labor arbitration for their grievance arbitration procedures.

Survey questionnaires were mailed to 86 labor and industrial relations managers of NPRA member companies who were shown to have union-represented refinery workers in the 1988 survey. A cover letter which was mailed to the management advocates and the survey questionnaire requesting their participation in the survey are shown in Appendix A. Responses in the form of completed questionnaires were received by 40 of the management advocates for a response rate of 46.5%.

Survey questionnaires were mailed to the Assistant to the International President of the OCAW for distribution to all union advocates for that union who are routinely involved in ad hoc labor arbitration selection. Responses with completed questionnaires were returned to the researcher by 31 union advocates who select ad hoc arbitrators for the OCAW. This response represented virtually all of the OCAW union advocates who select ad hoc labor arbitrators.<sup>73</sup> Additionally, six survey questionnaires were sent to business managers who select ad hoc arbitrators for six IUOE locals; all six completed questionnaires were returned. The six IUOE business

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<sup>73</sup>Dean T. Alexander, Assistant to the President of the Oil, Chemical and Atomic Workers International Union, AFL-CIO, telephone interview with the author, 8 October 1989.

managers all indicated that they administer labor agreements in the petroleum refining industry. A cover letter which was mailed to the union advocates and the survey questionnaire requesting their participation in the survey are also shown in Appendix A.

#### Data Collection

The data was collected by means of a survey questionnaire mailed to company and union advocates in the petroleum refining industry who routinely select ad hoc labor arbitrators. A mail questionnaire can be an effective technique when used under appropriate conditions.<sup>74</sup> Mail questionnaires that can be easily and quickly answered may be used when the type of information required can be obtained from properly structured questions. If the information is possessed by persons who are able and willing to respond through the mail, a survey questionnaire may be used. Another condition appropriate for mail questionnaires exists when the universe is composed of a relatively homogeneous group of persons with similar interests, experiences, and backgrounds.<sup>75</sup>

The completed and returned questionnaires for the current study contained information furnished by management and union advocates experienced in the petroleum refining industry. The respondents indicated their assessments of

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<sup>74</sup>Clover and Balsley, 79.

<sup>75</sup>Ibid., 79.

some specific criteria considered in the selection of ad hoc labor arbitrators. Questions were composed of statements culled from previous studies of ad hoc labor arbitrator selection, and were designed to measure the relative importance of selection criteria. A copy of the questionnaire is shown in Appendix B. The data collected for analysis were the subjective evaluations of the specific criteria considered by union and company advocates in choosing ad hoc arbitrators for the resolution of labor disputes.

Section one of the questionnaire is comprised of fifty questions consisting of brief statements covering the criteria considered in selecting ad hoc labor arbitrators. The questions were designed to assess the advocates' opinions of how importantly certain criteria are considered in the ad hoc labor arbitrator selection process. Section two of the questionnaire consists of twelve questions designed to gather some other specific information used in the study.

#### Measurement of the Data

The survey questionnaire shown in Appendix B contains 50 statements identifying some criteria considered important in the selection of ad hoc labor arbitrators. Following each statement is a seven-point Likert scale, ranging from seven (7) for "Very important" to one (1) for "Not very important," measuring indications of the advocates' opinions



as to the level of importance of each criterion. The items contained in the questionnaire were transformed to compute three independent variables: background factors, recognition factors, and arbitration practice variables. These independent variables were analyzed to determine how each variable contributes to arbitrator selection decisions made by the two groups of advocates. In the research design, the dependent variable was the advocate's membership in the management group or the union group.

#### Research Hypothesis

The central hypothesis constructed for this study considers three major factors thought to be important to advocates selecting ad hoc labor arbitrators. The three major factors were formed for the hypothesis using criteria that are supported by the literature as being important in determining ad hoc labor arbitrator acceptability. The relative importance of these three factors to management and union advocates in the petroleum refining industry is the basis for the central hypothesis of this study:

Hypothesis: Ad hoc labor arbitrator acceptability to management and union advocates in the petroleum refining industry is determined by like considerations of the arbitrator's background factors, by recognition factors, and by arbitration practice factors.

This central hypothesis proposes that there are no differences between management and union advocates serving in the petroleum refining industry as to relative importance of the three factors in selecting ad hoc labor arbitrators. The hypothesis suggests that the advocates in the petroleum refining industry consider acceptability of ad hoc arbitrators to be a function of the overall consideration of the study's three factors.

The primary focus of the study was to examine the three major factors thought to be important in the selection of ad hoc arbitrators in the petroleum refining industry. However, there were two broad research questions also explored. The first question considered whether there were significant differences as to level of importance of the factors considered for ad hoc labor arbitrator selection between company and union advocates. The second question inquired whether the decision-makers in a dispute believed that having more information on specific factors in selecting ad hoc arbitrators would improve their chances of winning arbitration cases, as information about certain criteria making up the three factors is not always readily available to those making decisions.

#### Data Analysis

The statistical procedures applied were discriminant analysis,  $t$  tests of the differences comparing the sample means, and chi-square tests of independence for contingency

tables. The SPSSx (1988) statistical package and the BMDP (1985) statistical package were used for the analyses.

Discriminant analysis was employed to derive a procedure for classifying advocates into management or union groups based on their ranking of the independent variables. Klecka<sup>76</sup> considers discriminant analysis a useful statistical technique for studying the differences between two or more groups with respect to several variables. Discriminant analysis is used in order to interpret the ways in which groups differ on the basis of some set of characteristics.<sup>77</sup> It is most appropriate where there is a single categorical dependent variable and several metrically scaled independent variables.<sup>78</sup> In the current study, the dependent variable consisted of two categorical groups: management advocates who select ad hoc arbitrators in the petroleum refining industry and union advocates who select ad hoc arbitrators in the petroleum refining industry. The following independent variables were entered into the discriminant function: (1) arbitrator background factors, (2) arbitrator recognition factors, and (3) arbitrator arbitration practice factors. The expected results from the

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<sup>76</sup>William R. Klecka, Discriminant Analysis (Beverly Hills, CA: Sage Publications, Inc., 1987), 7.

<sup>77</sup>Ibid., 9.

<sup>78</sup>Joseph F. Hair, Jr., Ralph E. Anderson, and Ronald L. Tatham, Multivariate Data Analysis, 2nd ed. (New York: Macmillan Publishing Company, 1987), 75.

discriminant analysis for the study are that there are no statistically significant differences for the level of importance of the three factors between management and union advocates in selecting ad hoc labor arbitrators.

The  $t$ -test statistics were computed to determine if any statistically significant differences existed in the levels of importance of the criteria constituting the three factors between management and union advocates. The specific criteria reported in the literature as important considerations in selecting ad hoc labor arbitrators were transformed into the three factors serving as independent variables for the discriminant analysis.

Cross tabulation procedures were applied to the data derived from responses to six questions listed in the questionnaire. Cross tabulations were performed to determine if membership in a particular advocate group was independent of how the advocates responded to the questions. Cross tabulation tables showing frequencies of responses are used with Chi-square statistics for tests of independence.<sup>79</sup> Chi-square tests were used to determine whether the differences between the frequency of responses indicated by the advocates are statistically significant. The frequencies of the advocates' responses to the following six questions were analyzed:

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<sup>79</sup>Stephen P. Shao, Statistics for Business and Economics, 2nd ed. (Columbus, OH: Charles E. Merrill Publishing Co., 1972), 401.

1. Which age group do you most prefer for arbitrators?

|          |         |
|----------|---------|
| Under 40 | 60 - 69 |
| 40 - 49  | Over 70 |
| 50 - 59  |         |

2. Which per diem fee rate do you most prefer for arbitrators?

|             |             |
|-------------|-------------|
| Under \$200 | \$400 - 500 |
| \$200 - 300 | Over \$500  |
| \$300 - 400 |             |

3. Do you feel that an arbitrator's educational background makes any difference based upon the issue involved?

Yes No

4. Do you feel that, if you had more information about all the arbitrators on a particular panel, you would have a better chance of winning arbitration cases?

Yes No

5. Do you use some arbitrator qualification reporting service in selecting arbitrators from a panel?

Yes No

6. Do you feel that the information furnished to you from either FMCS or AAA concerning arbitrators' backgrounds is sufficient for selection of the best arbitrator from each panel?

Yes No

#### Summary

This chapter presented the methodology for the study of ad hoc labor arbitrator selection in the petroleum refining industry. This chapter also discussed the measurement of the data, the variables examined, the research hypothesis, and the data analysis techniques. Chapter 4 presents the research findings.

## CHAPTER IV

### RESEARCH FINDINGS

This chapter presents the research findings of the study. The statistical analyses performed on the data are discussed in this chapter. The statistical procedures applied were discriminant analysis, t tests of the differences comparing the sample means, and chi-square statistics for tests of independence. The SPSSx (1988) statistical package and the BMDP (1985) statistical package were used for the analyses.

#### Discriminant Analysis

A discriminant analysis was performed on the data collected from the questionnaires completed by management and union advocates. The objective of the discriminant analysis was to identify the most dominant factors in terms of discrimination between the two groups. The three factors considered to be important in explaining acceptability of arbitrators, adapted from the study by Briggs and Anderson,<sup>80</sup> were used as independent variables in the discriminant analysis.

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<sup>80</sup>Steven S. Briggs and John C. Anderson, "An Empirical Investigation of Arbitrator Acceptability." Industrial Relations 19.2 (Spring 1980): 163-174.

Since a small number of observations were available, the frequently used holdout method to validate a discriminant function was not considered appropriate for this study.<sup>81</sup> Frank, Massy, and Morrison<sup>82</sup> report that the potential for upward bias leading to overstatement of predictive power in discriminant analysis can be higher in the use of small sample sizes. Therefore, the jackknife stepwise discriminant function procedure was used for reducing the bias potential of a small sample size.<sup>83</sup> This procedure partitions out the effect of a set of sample data by eliminating an observation, in turn, from the computation of the group means and cross products. The Mahalanobis sample distance ( $D^2$ ) and the posterior probability are computed for the distance from an observation to the groups formed by the remaining observations.<sup>84</sup> The jackknife stepwise procedure is available using the BMDP Statistical Software (1985) package.

The items contained in the questionnaire were transformed to compute three independent variables:

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<sup>81</sup>Melvin R. Crask and William D. Perreault, Jr., "Validation of Discriminant Analysis in Marketing Research," Journal of Marketing Research 14.1 (February 1977): 60.

<sup>82</sup>Ronald E. Frank, William F. Massy, and Donald G. Morrison, "Bias in Multiple Discriminant Analysis," Journal of Marketing Research 2.3 (August 1965): 257.

<sup>83</sup>Crask and Perreault, 61.

<sup>84</sup>Peter A. Lachenbruch and M. Ray Mickey, "Estimation of Error Rates in Discriminant Analysis," Technometrics 10.1 (February 1968): 3.



background factors, recognition factors, and arbitration practice variables. These independent variables were analyzed to determine how each variable contributes to arbitrator selection decisions made by the two groups of advocates. The scale values for each of the three independent variables were ordered from one (1) interpreted as being "not very important" to seven (7) interpreted as being "very important." The means and standard deviations of the responses to the independent variables by each group are presented in Table 1.

TABLE 1  
GROUP MEANS AND STANDARD DEVIATIONS

| Variables                    | Management Advocates | Union Advocates | All Advocates  |
|------------------------------|----------------------|-----------------|----------------|
| Background Factors           | 4.00<br>(0.84)       | 3.60<br>(0.80)  | 3.82<br>(0.82) |
| Recognition Factors          | 4.54<br>(0.83)       | 4.32<br>(0.87)  | 4.43<br>(0.85) |
| Arbitration Practice Factors | 5.17<br>(0.58)       | 5.33<br>(0.64)  | 5.24<br>(0.61) |

The parameters specified in the BMPD jackknife stepwise discriminant function procedure for computation purposes consisted of an F-to-enter a variable and an F-to-remove a variable of 1.0, a tolerance of 0.001. Prior probabilities for the sample data of 0.53 for management advocates and 0.47 for union advocates were used in the computations. A

stepwise procedure allows independent variables into the resulting discriminant function on the basis of their power to differentiate among groups.<sup>85</sup> A simple correlation matrix of the three independent variables is shown in Table 2. None of the variables appear to be highly correlated.

TABLE 2

Pearson's Correlation Matrix

|      | V101 | V102 | V103 |
|------|------|------|------|
| V101 | 1.00 |      |      |
| V102 | 0.47 | 1.00 |      |
| V103 | 0.53 | 0.60 | 1.00 |

V101 = Arbitrator Background Factors  
 V102 = Arbitrator Recognition Factors  
 V103 = Arbitration Practice Factors

The three independent variables were retained in the stepwise discriminant function procedure. The discriminant analysis yielded the following discriminant function:

$$\underline{Z} = 2.24 + 0.87\underline{X}_1 + 0.59\underline{X}_2 - 1.09\underline{X}_3$$

where;  $\underline{Z}$  = the discriminant score,

$\underline{X}_1$  = arbitrator background factors,

$\underline{X}_2$  = arbitrator recognition factors, and

$\underline{X}_3$  = arbitration practice factors.

<sup>85</sup>Joseph F. Hair, Jr., Ralph E. Anderson, and Ronald L. Tatham, Multivariate Data Analysis, 2nd ed. (New York: Macmillan Publishing Company, 1987), 84.

The computed discriminant function is statistically significant with an approximate  $F$ -statistic of 4.26 with 3 and 71 degrees ( $p < .05$ ). The approximate  $F$ -statistic is computed from the Mahalanobis  $D^2$  statistic that tests the equality of group means for each pair of groups. The canonical correlation was found to be 0.39 indicating that the discriminant function explains only about 15 percent of the variation. The jackknife classification matrix indicating percent of observations correctly classified as management or union advocates using the discriminant function is shown in Table 3.

TABLE 3  
Jackknife Classification Matrix

| Group                   | Number of Observations<br>Classified into |                         |                    |
|-------------------------|---|-------------------------|--------------------|
|                         | Percent<br>Correct                        | Management<br>Advocates | Union<br>Advocates |
| Management<br>Advocates | 67.5                                      | 27                      | 13                 |
| Union<br>Advocates      | 68.6                                      | 11                      | 24                 |
| Total                   | 8.0                                       | 38                      | 37                 |

An interpretation of the discriminant function is made using the group means shown in Table 1. The discriminant function suggests that management advocates would more likely consider arbitrators' background factors and

recognition factors more important than would union advocates in selecting an ad hoc labor arbitrator. The discriminant function also suggests that management advocates would more likely consider arbitrators' arbitration practice factors less important than would union advocates in selecting an ad hoc labor arbitrator.

In determining prediction accuracy, the percentage of correct classifications from the classification matrix should be compared with the percentage of correct classifications that would be expected by chance. Hair, Anderson, and Tatham<sup>86</sup> suggest that classification accuracy be at least 25 percent greater than what would be expected due to chance. The proportional chance criterion should be used for unequal group sizes in discriminant analysis for correctly identifying members of two groups.<sup>87</sup> The proportional chance criterion used in the current study for the unequal group sample sizes ( $N=40$  or 53% for management advocates and  $N=36$  or 47% for union advocates) was determined to be 50.2 percent. This criterion was computed by use of the following formula:

$$C \text{ proportional} = p^2 + (1-p)^2$$

where  $p$  = the proportion of management advocate group members and  $1-p$  = the proportion of union advocate group members.

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<sup>86</sup>Ibid., 90.

<sup>87</sup>Ibid., 89.

This proportional chance criterion indicates a probability that 50.2 percent of the individuals comprising the sample would be correctly classified by chance alone. The percentage of correct classifications resulting from the jackknife stepwise discriminant function procedure was computed to be 68.0 percent. Therefore, the percentage of correct classifications is approximately 35 percent above the percentage that would be expected due to chance.

#### t-Test Analysis

A t-test analysis was performed on the transformed data for the three factors considered important in selecting ad hoc arbitrators. The objective of the t-test analysis was to determine if any statistically significant differences for each of the three factors existed between the two advocate groups. Table 4 presents a comparison of the mean differences between the advocate groups as to their ratings on the seven-point scale of importance for the three selection factors.

The values in Table 4 show that the mean for the management advocates' rating of 4.00 for arbitrator background factors is significantly different than the mean for the union advocates' rating of 3.60. The management advocates appear to view the arbitrator background factors as more important in the selection process for ad hoc labor arbitrators. There were no statistically significant differences between management and union advocates as to

TABLE 4  
Comparison of Selection Factor Ratings  
for Advocate Groups

| Selection Factors      | Group Means          |                 | t-value |
|------------------------|----------------------|-----------------|---------|
|                        | Management Advocates | Union Advocates |         |
| Arbitrator Background  | 4.00                 | 3.60            | 2.09 *  |
| Arbitrator Recognition | 4.54                 | 4.32            | 1.14    |
| Arbitration Practice   | 5.17                 | 5.33            | (1.10)  |

\*  $p < .05$ .

their ratings of importance for arbitrator recognition factors and arbitration practice factors.

Since the computed discriminant function was found to be statistically significant, a  $t$ -test analysis was performed on the advocate group responses to the questionnaire items corresponding to criteria included in the three factors. The results of those  $t$ -test analyses on the criteria are shown in Appendix C. The scaled measures for those criteria were later transformed into arbitrator background factors, arbitrator recognition factors, and arbitrator arbitration practice factors.

#### Chi-square Tests of Independence

A cross-tabulation procedure was performed on the sample data derived from responses to six questions in

section two of the questionnaire.<sup>88</sup> Chi-square tests of independence were used to determine if any statistically significant differences existed between management and union advocates in the frequencies of their responses to the questions. A significant value of the chi-square statistic indicates nonindependence of the variables.<sup>89</sup> The advocates' responses to the following questions were used for the analyses:

1. Which age group do you most prefer for arbitrators?  
Under 40    40-49    50-59    60-69    Over 70
2. Which per diem fee rate do you most prefer for arbitrators?  
Under \$200    \$200-300    \$300-400    \$400-500    Over \$500
3. Do you feel that an arbitrator's educational background makes any difference based upon the issue involved?  
Yes    No
4. Do you feel that, if you had more information about all the arbitrators on a particular panel, you would have a better chance of winning arbitration cases?  
Yes    No
5. Do you use some arbitrator qualification reporting service in selecting arbitrators from a panel?  
Yes    No
6. Do you feel that the information furnished to you from either FMCS or AAA concerning arbitrators' backgrounds is sufficient for selection of the best arbitrator from each panel?  
Yes    No

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<sup>88</sup>See questionnaire in Appendix B.

<sup>89</sup>Jean L. Bresnahan and Martin M. Shapiro, "A General Equation and Technique for the Exact Partitioning of Chi-square Contingency Tables," Psychological Bulletin 66.4 (July 1966): 252-256.

### Age Group Preference

The advocates' responses to the first question represent the arbitrator age groups preferred by the management and union advocates participating in the study. The cross-tabulation procedure classified frequencies of responses by management and union advocates to the five age group preferences for arbitrators. Table 5 shows the combined effects of applying the cross-tabs model to data collected from the responses to this question.

TABLE 5

#### Combined Effects of Advocates' Preferences and Age Groups for Arbitrators

| Advocate Group | Arbitrator Age Groups Preferred |             |              |             |            | Total          |
|----------------|---------------------------------|-------------|--------------|-------------|------------|----------------|
|                | <40                             | 40-49       | 50-59        | 60-69       | >70        |                |
| Management     | 0                               | 5           | 25           | 4           | 0          | 34<br>(53.1%)  |
| Union          | 3                               | 23          | 3            | 0           | 30         | (46.9%)        |
| Total (%)      | 1<br>(1.6)                      | 8<br>(12.5) | 48<br>(75.0) | 7<br>(10.9) | 0<br>(0.0) | 64<br>(100.0%) |

$\chi^2 = 1.48$  (df = 3), significance level = 0.69.

Sixty-four (84%) of the 76 respondents indicated age group preferences for arbitrators. Many of the 12 (16%) respondents not indicating age group preferences noted that the age of an arbitrator was not an important consideration. The chi-square statistic was not statistically significant for the combined effects. The test results indicate that



there is no apparent relationship between advocate group membership and age group preference for arbitrators. The frequency distributions for the advocate groups responding to this question do suggest, however, that both groups indicate a greater preference for arbitrators between the ages of 50 to 59. The frequency distributions for the responses to this question also indicate that the respondents do not show much of a preference for arbitrators below the age of 40. None of the respondents indicated a preference for arbitrators older than age 70.

#### Per Diem Fee Rate Preference

Table 6 shows the combined effects of applying the cross-tabs model to data for the responses to the second question. The responses to this question represent the management and union advocates' preferences of arbitrator per diem fee rate groups.

The cross-tabulation procedure classified frequencies of responses by management and union advocates to the five per diem fee rate groups for arbitrators. Sixty-three (83%) of the 76 respondents indicated per diem fee rate group preferences for arbitrators. There were 13 respondents (17%) who did not indicate a preference for a per diem fee rate group; however, some noted that arbitrator fees were not important in selecting arbitrators. The computed chi-square statistic was found to be statistically significant for the combined effects of the two advocate groups and per

TABLE 6

Combined Effects of Advocates' Preferences and  
Per Diem Fee Rate for Arbitrators

| Advocate Group | Arbitrator Per Diem Fee Rate Group Preferred |              |              |              |            | Total          |
|----------------|--|--------------|--------------|--------------|------------|----------------|
|                | Under \$200                                  | \$200 to 300 | \$300 to 400 | \$400 to 500 | Over \$500 |                |
| Management     | 1  | 2            | 14           | 11           | 5          | 33<br>(52.4%)  |
| Union          | 6  | 4            | 15           | 4            | 1          | 30<br>(47.6%)  |
| Total (%)      | 7<br>(11.1)                                  | 6<br>(9.5)   | 29<br>(46.0) | 15<br>(23.8) | 6<br>(9.5) | 63<br>(100.0%) |

$X^2 = 10.08$  (df = 4), significance level = 0.04.

diem fee rate groups. The test result indicates that there is some relationship between advocate group membership and per diem fee rates charged by arbitrators. Upon observing the frequency distributions for the advocate groups' responses to this question, it appears that more members of the management advocate group are willing to select arbitrators who charge higher daily fees.

Arbitrator's Educational Background

The third question examined management and union advocates' opinions of whether or not an arbitrator's educational background affects his or her performance depending upon the issue involved in the case. An issue in a particular case is the question addressing the pertinent matters in a given case. All of the respondents indicated an answer to this question. This cross-tabulation

comparison indicates that both management and union advocates view an arbitrator's educational background as significantly related to the issue involved in the case. Table 7 shows the combined effects of applying the cross-tabs model to data collected from the responses to this question.

TABLE 7

Combined Effects of Advocates' Opinions on an Arbitrator's Educational Background versus the Issue Involved

| Advocate Group | Does An Arbitrator's Educational Background Making a Difference Depending Upon the Issue Involved? |           |             |
|----------------|--|-----------|-------------|
|                | Yes  | No        | Total       |
| Management     | 35   | 5         | 40 (52.6%)  |
| Union          | 25   | 11        | 36 (47.6%)  |
| Total (%)      | 60 (78.9)  | 16 (21.1) | 76 (100.0%) |

$\chi^2 = 2.71$  (df = 1), significance level = 0.10.

Small differences of opinion exist between the advocate groups, but the differences are not statistically significant. Thus, membership in a particular advocate group appears to be independent of the advocates' opinions as to whether or not an arbitrator's educational background makes any difference based upon the issue involved in the case.

More Information About Arbitrators

The fourth question examined the advocates' opinions as to whether or not more information about all of the

arbitrators on a panel would improve a given advocate's group's chances of winning arbitration cases. This cross-tabulation comparison indicated that both advocate groups felt that their chances of winning arbitration cases would improve if more information were available about the arbitrators on particular panels. Table 8 shows the combined effects of applying the cross-tabs model to data collected from the management and union advocates' responses to the fourth question considered.

TABLE 8

Combined Effects of Advocates' Opinions as to More  
Information About Arbitrators Improving  
Their Chances of Winning Cases

| Advocate<br>Group | More Information About Arbitrators<br>Improves Chances of Winning<br>Arbitration Cases? |              |             |
|-------------------|---|--------------|-------------|
|                   | Yes   | No           | Total       |
| Management        | 32  | 7            | 39 (52.0%)  |
| Union             | 28  | 8            | 36 (48.0%)  |
| Total<br>(%)      | 60<br>(80.0)  | 15<br>(20.0) | 75 (100.0%) |

$\chi^2 = 0.03$  (df = 1), significance level = 0.86.

There are no statistically significant differences between the responses by management and union advocates to this question. Thus, membership in a particular advocate group appears to be independent of an advocate's opinion as to whether or not more available information about

arbitrators on a particular panel would improve his or her group's chances of winning.

Arbitrator Qualification Reporting Service

The fifth question inquired whether or not the advocates use some arbitrator qualification reporting service in gathering information about arbitrators on a panel. Table 9 presents the combined effects of applying the cross-tabs model to the data collected from the advocates' responses to this question.

TABLE 9  
Combined Effects of Advocates' Responses as to Use  
of Arbitrator Qualification Reporting Service

| Advocate Group | Use An Arbitrator Qualification Reporting Service in Selecting Panels? |              |    | Total               |  |
|----------------|--|--------------|----|---------------------|--|
|                | Yes  | No           |    |                     |  |
| Management     | 30   | 10           | 40 | (52.6%)             |  |
| Union          | 6  | 30           | 36 | (47.6%)             |  |
| Total (%)      | 36<br>(47.4)   | 40<br>(52.6) | 76 | (100.0%)<br>(100.0) |  |

$\chi^2 = 23.57$  (df = 1), significance level < 0.01.

The results of this cross-tabulation comparison suggest that many more management advocates use an arbitrator qualification reporting service than do union advocates. The differences between the management and union advocates' responses to this question are statistically significant at the .01 level.

Information Furnished by FMCS and AAA

The sixth question inquired whether or not the advocates felt that the information furnished by the Federal Mediation and Conciliation Service and the American Arbitration Association concerning arbitrators' backgrounds was sufficient for selection of the best arbitrator from each panel. Table 10 shows the combined effects of applying the cross-tabs model to the advocates' responses to the sixth question.

TABLE 10

Combined Effects of Advocates' Opinions as to Sufficiency of Arbitrator Background Information Furnished by Agency

| Advocate Group | Arbitrator Background Information<br>Furnished by FMCS or AAA Sufficient<br>for Selection of Best Arbitrator<br>on Each Panel? |              |    | Total               |  |
|----------------|--|--------------|----|---------------------|--|
|                | Yes  | No           |    |                     |  |
| Management     | 7  | 33           | 40 | (52.6%)             |  |
| Union          | 15   | 21           | 36 | (47.6%)             |  |
| Total (%)      | 22<br>(28.9)   | 54<br>(71.1) | 76 | (100.0%)<br>(100.0) |  |

$\chi^2 = 4.27$  (df = 1), significance level = 0.04.

The results of this cross-tabulation comparison indicate that a greater proportion of management advocates feel that the arbitrator background information, furnished as part of the services by FMCS or AAA, is not sufficient for selection of the best arbitrator from each panel. The differences between the management and union advocates'

opinions in response to this question are statistically significant. The findings in this analysis seem to support the findings in the analysis of the responses to the previous question showing that more management advocates use an arbitrator qualification reporting service than do union advocates.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

This study was guided by the arbitrator acceptability theory hypothesized by Briggs and Anderson.<sup>90</sup> A model was developed from their theory to explain the process for ad hoc labor arbitration selection. The model illustrated three major factors, each consisting of several criteria, that were considered important to management and union advocates in selecting ad hoc labor arbitrators. The current study explored the criteria in the model as to their significance in the selection of ad hoc labor arbitrators by advocates in the petroleum refining industry. This chapter discusses a synopsis of the study, a summary of the findings, and implications for further study.

#### Synopsis of the Study

The parties involved in a labor arbitration process want arbitrators who are impartial, experienced, and knowledgeable of labor-management relations. Many of the established procedures for selection of an impartial party for dispute settlement call for the selection of a different arbitrator for each dispute or for a limited number of

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<sup>90</sup>Steven S. Briggs and John C. Anderson, "An Empirical Investigation of Arbitrator Acceptability," Industrial Relations 19.2 (Spring 1980): 163.



disputes. This procedural arrangement is commonly referred to as "ad hoc" arbitration. An ad hoc labor arbitration system uses a process of selecting an arbitrator from a list or panel of arbitrator's names furnished by an appropriate arbitrator listing service.

The model explained in Chapter 1 shows the criteria found in the literature that is considered by advocates determining acceptability of specific ad hoc labor arbitrators during the selection process. The model further categorizes those criteria into three factors: background factors, recognition factors, and arbitration practice factors.

The primary purpose of this study was to examine the three major factors thought to be important acceptance considerations by petroleum refining industry advocates in their selection of ad hoc arbitrators. This study was to investigate possible divergent views of the advocates as to the importance of these factors in judging arbitrator acceptability for ranking purposes. It was hypothesized that the management and union advocates in the petroleum refining industry give like consideration to arbitrators' background factors, recognition factors, and arbitration practice factors in judging ad hoc labor arbitrator acceptability. Thus, the first research question posed in this study was: Are there significant differences as to importance of factors considered for ad hoc labor arbitrator

selection between company and union advocates in the petroleum refining industry?

Another research question considered in this study focused on the advocates' opinions regarding whether their chances of winning an arbitration case were a function of the amount of information available when selecting ad hoc arbitrators. As decision-makers in judging acceptability of a number of arbitrators listed on a panel, the advocates often have very little information about the individual arbitrators. Thus, the second research question posed in this study was: Do the decision-makers feel that having more information on specific factors in selecting an ad hoc arbitrator would improve their chances of winning arbitration cases?

The population for this study included all management and union advocates in the petroleum refining industry who are involved in the ad hoc labor arbitrator selection process. This population was chosen since ad hoc labor arbitration is the predominant third-party dispute resolution technique used in this particular industry.<sup>91</sup> Judgment sampling was used in the research methodology for this study. The sample included both petroleum refining company and labor union officials and their respective

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<sup>91</sup>Pat R. Wrigley, Director of Administration of the National Petroleum Refiners Association, Washington, DC Telephone interview with the author, 9 May 1989.

attorneys, all of whom make decisions concerning the selection of ad hoc labor arbitrators.

A mail questionnaire was utilized as a means of data collection for this study. There were 40 management advocates and 36 union advocates participating in the study. In section one of the questionnaire, the advocates responded to 50 questions composed of brief statements covering the criteria considered in selecting ad hoc labor arbitrators.<sup>92</sup> The questions were designed to assess the advocates' opinions as to how important certain criteria were considered to be in the selection of ad hoc arbitrators. In section two of the questionnaire, some questions were designed to gather information about any advocacy preferences for arbitrators based upon such characteristics as age groups, per diem fee rate ranges, or educational background. A number of questions in this section of the questionnaire were developed to inquire into the advocates' perceptions on availability and sufficiency of information about arbitrators for selection purposes.

Each statement in the questionnaire identified criteria found in the literature to be important in the selection of ad hoc labor arbitrators; each question was followed by a seven-point Likert scale for responses. The seven-point scale ranged from seven (7) for "Very important" to one (1) for "Not very important." Scaled measures of the responses

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<sup>92</sup>See questionnaire in Appendix B.

as to the relative importance of the criteria were tabulated for the statistical analyses. The data for the criteria were then transformed into the three independent variables: arbitrator background factors, arbitrator recognition factors, and arbitrator arbitration practice factors.

Discriminant function analysis was used in evaluating the management and union advocates' responses to these three independent variables. Membership in the management advocate group or the union advocate group was treated as the categorical dependent variable in the discriminant function analysis. Descriptive statistics and tests of significance were computed in order to determine significant statistical differences between the management and union advocates' responses. Finally, cross tabulation procedures were applied to the advocates' responses to six questions listed in the questionnaire designed to assess opinions on specific information provided for selection decisions. Chi-square statistics for tests of significance were examined to determine if membership in an advocate group was related to how the advocates responded to the questions.

#### Summary of the Findings

The objective of the discriminant analysis was to identify any dominant factors in terms of discrimination between the two advocate groups. All three independent variables -- arbitrator background factors, arbitrator recognition factors, and arbitrator arbitration practice

factors -- were retained in the stepwise procedure for the discriminant function analysis. The computed discriminant function was found to be statistically significant in discriminating between the two advocate groups. The independent variable contributing the greatest weight in the discriminant function was that indicating arbitration practice factors (discriminant coefficient = 1.09). The background factors variable was observed contributing the second greatest weight (discriminant coefficient = 0.87) to the discriminant function followed by the recognition factors variable (discriminant coefficient = 0.59). Therefore, the central hypothesis proposed in this study should be rejected.

The findings of the discriminant function analysis indicate that management and union advocates do not give like consideration to arbitrators' background factors, recognition factors, and arbitration practice factors in judging ad hoc labor arbitrator acceptability. The results indicate that management advocates are more likely to consider arbitrators' background factors and recognition factors to be more important than are union advocates in selecting an ad hoc labor arbitrator. The results also indicate that management advocates are more likely to consider arbitrators' arbitration practice factors to be less important than are union advocates in ad hoc labor arbitrator selection. Therefore, the first research

question posed in the study initially must be answered in the affirmative as a result of the discriminant function analysis. Based upon the results of the discriminant analysis, the management and union advocate groups are statistically different from each other as to the relative importance that they place upon the three factors considered for ad hoc labor arbitrator selection in the petroleum refining industry. However, a comparison of the group means for the two advocate groups using t-test analyses indicates that they differ significantly only on their evaluations of the arbitrator background factor.

The results of the group means comparisons for the two advocate groups' measures of their perceived importance of the three major factors also provides some support of an affirmative answer to the first research question. The group means for the management advocates' rating of background factors (4.00 on a seven-point scale of importance) was higher than the group means for the union advocates (3.60). The t-test analysis found that the difference between the group means for management and union advocates on their ratings of background factors was statistically significant. This finding indicates that management advocates appear to view the arbitrator background factors as more important in selecting ad hoc arbitrators than do union advocates in the petroleum refining industry. Management advocates also indicated a

slightly higher measure of importance for arbitrator recognition factor (group means = 4.54) than did union advocates (group means = 4.32). Although the two groups differ on their evaluations of importance for this factor, the difference was not found to be statistically significant. Union advocates, on the other hand, demonstrated a slightly higher measure of importance for arbitration practice factors (group means = 5.33) than did management advocates (group means = 5.17). This difference was not found to be statistically significant upon computing the  $t$ -test statistic.

The findings of the current study do not support the results of the study conducted by Briggs and Anderson.<sup>93</sup> In that study, the researchers surveyed a regional group of arbitrators who were listed with the American Arbitration Association in the Los Angeles and San Francisco areas. A regression analysis was performed in order to determine the more important characteristics of arbitrators participating in the study. The researchers combined three independent variables; background characteristics, visibility characteristics, and arbitration practice characteristics for each arbitrator. The dependent variable used as a surrogate for acceptability was the number of cases each arbitrator reported hearing within the twelve months preceding the survey. Briggs and Anderson suggested that

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<sup>93</sup>Ibid., 172.

"visibility characteristics" formed the most important variable in a model of arbitrator acceptability.<sup>94</sup> They describe visibility characteristics as those activities that arbitrators engage in that increase the chances that advocates readily recognize their names. A comparable variable in the current study, which was identified as arbitrator recognition factors, was not found to be the most important variable when comparing the group means for all advocates. The mean rating of all participating advocates for the arbitration recognition factors variable, which was 4.43 on a seven-point scale, does not indicate that the advocates evaluated this variable as being very important. The difference between the group means were not found to be statistically significant. The arbitrator recognition factors variable contributed the lowest weight to the discriminant function in the current study.

The prior study by Briggs and Anderson also reported that the background characteristics variable was less important than the "visibility characteristics" variable and that the arbitration practice variable was even less clear.<sup>95</sup> On the other hand, the results of the current study suggest that the greatest weight in the model for ad hoc labor arbitrator selection in the petroleum refining industry should be assigned to the arbitration practice

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<sup>94</sup>Ibid., 172.

<sup>95</sup>Ibid., 172.



factors variable. The mean rating for all advocates in the current study (5.24) as to their perceptions of the level of importance for an arbitrator's arbitration practice factors was found to be 5.24 on a seven-point scale. This combined rating indicates that both advocate groups consider the arbitration practice factors variable as being very important in ad hoc labor arbitrator selection.

Since the computed discriminant function was found to be statistically significant, a t-test analysis was performed on the advocate group responses to the questionnaire items corresponding to each criterion included in the three factors. The results of those t-test analyses on the criteria are shown in Appendix C. The scaled measures for those criteria were later transformed into arbitrator background factors, arbitrator recognition factors, and arbitrator arbitration practice factors. The t-tests observed in Appendix C show that mean differences between management and union responses for four of the criteria included in background factors were found to be statistically significant. The results suggest that the following criteria -- (1) an arbitrator's level of education, (2) an arbitrator's years of experience as an arbitrator, and (3) arbitrators who have a law degree -- are perceived as significantly more important to the management advocates. However, neither of the advocate groups, collectively, demonstrated that the criterion of an

arbitrator having a law degree was very important. The results also suggest that the criterion of an arbitrator's occupation prior to becoming an arbitrator is perceived as significantly more important to the union advocates than to those in management.

A comparison of the group means for ratings of the criteria included as arbitrator recognition factors reveals that the number of published awards was the only criterion in which the groups differed significantly. Although the results show that management advocates perceive this criterion to be more important than do union advocates, neither group strongly rated this consideration as important in the selection of ad hoc labor arbitrators in the petroleum refining industry.

The comparisons of group means for the advocates' ratings of the criteria included as arbitration practice factors reveal several criteria in which the two groups show statistically significant differences. It appears that management advocates perceive the following criteria to be more important than do union advocates for particular arbitration practices of arbitrators: (1) adherence to his or her authority, (2) weighing pertinent citations of published cases, (3) ruled for me in a previous case, and (4) had issued fewer awards in favor of the other party. Further, it appears that union advocates perceive the following criteria to be more important than do management

advocates for certain arbitration practices of arbitrators: (1) fees and expenses charged, (2) time taken to issue an award, (3) clarity in writing awards, (4) weighing of past practice when contract language is ambiguous, (5) requirement of due process in discipline and discharge cases, and (6) thorough evaluation of evidence and testimony of witnesses.

Cross-tabulation procedures were performed on data derived from responses to six of the questions located in section two of the questionnaire.<sup>96</sup> Chi-square tests of independence were computed to determine if any relationship existed between management and union advocates and their responses to the six questions. The first three questions focused on the advocates' preference for arbitrators based upon specific information furnished by the arbitrator listing service. These known considerations about arbitrators on a particular panel include an arbitrator's age, an arbitrator's per diem fee rate, and an arbitrator's educational background. The other three questions dealt with the following issues of information availability for selecting arbitrators from a panel: (1) improvement of chances to win a case if more information about the arbitrators was available, (2) advocates' use of some arbitrator qualification reporting service, and (3)

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<sup>96</sup>See questionnaire in Appendix B.

sufficiency of information furnished by the arbitrator listing service for selection of the best arbitrator.

The combined effects of frequencies for the management and union advocates' responses to the five age group preferences were found to be independent. There is no support of a theory that a relationship exists between advocacy membership and arbitrator age group preference. However, both advocate groups indicated a great preference (75% of the responses) for arbitrators in the 50-59 age group. Very little preference was shown for arbitrators below the age of forty and no preference was shown for arbitrators over age seventy.

The results did suggest that there is some relationship between advocacy membership and arbitrator per diem fee rate preference in the petroleum refining industry. Membership in the management or union advocate group and preferred arbitrator per diem fee rate were found to be nonindependent. The study reveals that more management advocates are willing to select arbitrators who charge higher daily fees than are union advocates. This finding contrasts with much prior research which concluded that arbitrator fees and expenses were unimportant in selection of ad hoc labor arbitrators.

Membership in an advocacy group appears to be independent of an advocate's preference for one educational background over another when the advocate is considering an

arbitrator for a specific case. However, the results of the combined effects of the two variables did show that both advocate groups strongly agreed (79% of the responses) that an arbitrator's educational background made a difference depending upon the issue involved. The two principal categories of issues generally designated in labor arbitration cases are (1) discipline or discharge issues and (2) contract interpretation issues. This study suggested that advocates believe that the educational background of the arbitrator would make a difference in such cases, a phenomenon that is well supported by the literature.

Management and union advocates alike strongly agreed (80% of the responses) that their chances of winning arbitration cases would improve if they had more information about all of the arbitrators on a panel. The study, however, did not reveal any apparent relationship between advocacy group membership and advocates' opinions as to whether more available information about arbitrators would improve chances of winning.

The results suggest that a strong relationship exists between advocacy group membership and the use of an arbitrator qualification reporting service in selecting arbitrators from panels in the petroleum refining industry. It was shown that many more management advocates indicated use of an arbitrator qualification reporting service than did union advocates. It is possible that union advocates

rely upon a network, either formal or informal, within the international organizations as an intraunion advisory service for arbitrator acceptability.

Lastly, the study revealed an apparent relationship between advocacy group membership and advocates' opinions as to the sufficiency of information furnished by the arbitrator services providing panels. A greater proportion of the management advocates than union advocates indicated that they felt that the arbitrator background information, furnished as part of the services of the FMCS or AAA, is insufficient for selection of the best arbitrator from each panel. This finding may explain why more management advocates than union advocates use an arbitrator qualification reporting service in the petroleum refining industry.

#### Implications for Further Research

Some of the findings in this study are significant in that they support dissimilar profiles for the two groups of advocates regarding preferences for certain factors considered in the selection of ad hoc labor arbitrators. The results support a theory that management advocates and union advocates in the petroleum refining industry place different emphases upon particular variables in selecting ad hoc labor arbitrators.

Nevertheless, the current study raises a few questions for future research and study.

Would advocates in other industries show similar proportions of importance regarding the factors considered by advocates in the petroleum refining industry in selecting ad hoc labor arbitrators? Also, would advocates who select labor arbitrators to serve as a permanent umpire place as much importance upon the factors considered by advocates selecting ad hoc labor arbitrators? Replications of the results found in this study in further research conducted in other industries and in processes using permanent labor arbitrators may lend support to the current study and increase generalizability of the findings.

Would replications of this study in other industries serve to provide support of the theory which hypothesized that three groups of factors explain arbitrator acceptability? The model used in the current study to explain the ad hoc labor arbitration selection process defined three groups of variables. This model shows a categorization of the criteria considered by the advocates in selecting ad hoc labor arbitrators into one of the following three variables: background factors, recognition factors, and arbitration practice factors. Replications of the study in other industries may allow the use of exploratory factor analysis to better identify the major factors or variables in which to categorize the criteria considered for the selection process. The population of the current study, management and union advocates in the

petroleum refining industry who select ad hoc labor arbitrators, did not provide an adequate sample size for factor analysis. It appears that the number of management and union advocates who select ad hoc labor arbitrators in the petroleum refining industry comprise a small group of professionals in that industry. It may be found that this situation exists in any industry that extensively uses ad hoc arbitration as the predominant means for dispute resolution. Therefore, in order to obtain a sufficient sample size for an exploratory factor analysis, it may be the case that a population of management and union advocates in all industries using ad hoc labor arbitration should be included for the research.

One other area of probable further study would involve an extensive investigation of the statistically significant differences of opinions between the advocates on specific criteria. What are the reasons for the different perceptions between management and union advocates as to importance of certain criteria? Simple logic and reasoning offer tentative explanations for some of the differences, but further research of these differences may provide sounder conclusions.

#### Conclusion

The purpose of this study was to examine the criteria that union and management advocates in the petroleum refining industry consider in selecting ad hoc labor



arbitrators. The primary focus of the study was to examine three major factors thought to be important acceptance considerations in a model of the ad hoc labor arbitrator selection process. The results of the study indicate that management and union advocates do not give like consideration to arbitrators' background factors, recognition factors, and arbitration practice factors in judging ad hoc labor arbitrator acceptability.

The findings of the study suggest a diverse profile for each of the advocacy groups in the petroleum refining industry in general preferences of certain factors considered for selecting ad hoc labor arbitrators. Management advocates would likely consider arbitrators' background factors and arbitrators' recognition factors as being more important than would union advocates. Also, management advocates would more likely (1) select arbitrators who charge higher daily fees, (2) use an arbitrator qualification reporting service, and (3) perceive the arbitrator background information furnished along with the names on a particular panel to be insufficient information for selecting the best arbitrator. Union advocates would be more likely than management advocates to consider arbitrators' arbitration practice factors to be important. Additionally, union advocates would more likely (1) select arbitrators who charge lower daily fees, (2) not use an arbitrator qualification reporting service, and (3)

perceive the arbitrator background information furnished with a particular panel to be sufficient information for selecting the best arbitrator.

APPENDIX A  
COVER LETTER SENT WITH QUESTIONNAIRE TO  
UNION AND MANAGEMENT ADVOCATES IN THE  
PETROLEUM REFINING INDUSTRY

## COVER LETTER EXAMPLE

Dear :

Your assistance is needed for a research project to determine the importance of some criteria considered in deciding ad hoc labor arbitrator acceptability. Your participation by responding to the enclosed questionnaire is essential in order to conduct this study. The results of the study may help to gain a better understanding of the process of selecting ad hoc labor arbitrators in the petroleum refining industry. The information from your responses to the questionnaire will be analyzed and the findings then will be presented as part of a dissertation leading to a Ph.D. degree at the University of North Texas. Additionally, I find this study particularly interesting since I have spent over 25 years working in the petroleum refining industry and I am familiar with the ad hoc labor arbitration process used as a dispute resolution method in the industry.

You are one of a small group of professionals involved with ad hoc labor arbitration in the petroleum refining industry whose opinion is being sought in this field. In order that the results of the study truly represent the thinking of union advocates/management advocates in the selection process for ad hoc labor arbitrators, it is important that the questionnaire be completed and returned. Therefore, the questions should be answered by someone who is knowledgeable of the process. If you feel that some other person in your union/company is more knowledgeable of the selection process and is better prepared to respond, please forward the questionnaire to that person.

I certainly appreciate your time to complete the questionnaire and return it to me in the enclosed, self-addressed and pre-paid envelope. You may be assured of complete confidentiality in the handling of your responses to the questionnaire. Your name need not be placed on the questionnaire since your identity, other than knowing whether you represent management or labor in arbitration proceedings, is not important to the study. Your participation, while voluntary, is critical to the success of this project.

The results of this study will be available in a few months. If you desire a summary of the results, you should indicate so in writing when you send the completed

questionnaire back in the return envelope. You will receive a prompt reply to any questions regarding this research project by either calling me at ( ) or writing me at the address shown in this letter. Your expert assistance and opinion is greatly appreciated.

Sincerely yours,

Robert F. Wayland

**APPENDIX B**  
**QUESTIONNAIRE FOR MANAGEMENT AND UNION ADVOCATES**  
**IN THE PETROLEUM REFINING INDUSTRY**

## AD HOC LABOR ARBITRATOR ACCEPTABILITY QUESTIONNAIRE

Instructions: Please answer the following questions as to best of your ability by either marking the appropriate answers or providing requested explanations.

SECTION ONE:

INSTRUCTIONS: Please respond to the following statements by circling the number that you feel best represents the level of importance of some criteria considered in selecting ad hoc labor arbitrators when preparing to strike a panel.

|     |  | Very<br>important |   |   | Not very<br>important |       |
|-----|--|-------------------|---|---|-----------------------|-------|
| 1.  | The age of an arbitrator on a panel.   | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 2.  | The sex of an arbitrator on a panel.   | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 3.  | An arbitrator's race, color, or<br>national origin.  | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 4.  | An arbitrator's level of education.  | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 5.  | An arbitrator's occupation prior to<br>becoming an arbitrator.                               | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 6.  | Number of years experience as an<br>arbitrator.  | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 7.  | An arbitrator's address.   | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 8.  | An arbitrator's current occupation.  | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 9.  | Professional associations of which an<br>arbitrator is a member.                             | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 10. | Number of published awards that an<br>arbitrator has.  | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 11. | An arbitrator's listing on several<br>different panels.                                      | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 12. | Number of journal articles in the<br>field of labor relations<br>published by an arbitrator. | 7                 | 6 | 5 | 4                     | 3 2 1 |
| 13. | An arbitrator's participation at<br>professional meetings, seminars,<br>and conferences.     | 7                 | 6 | 5 | 4                     | 3 2 1 |

|   | Very important |   |   | Not very important |   |   |   |
|---|----------------|---|---|--------------------|---|---|---|
| 14. An arbitrator's name recognition in the labor relations community.                            | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 15. An arbitrator's reputation for impartiality.  | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 16. The nature of the issue involved in a case.   | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 17. Familiarity with an arbitrator from prior cases.  | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 18. Familiarity with an arbitrator from comments by colleagues.                                   | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 19. Familiarity with an arbitrator from source of information other than personal experience.     | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 20. Fees and expenses charged by an arbitrator.   | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 21. An arbitrator's past number of cases decided.   | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 22. An arbitrator's previous decline of a case (turned down a case before).                       | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 23. The time that an arbitrator takes to issue an award.  | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 24. Whether an arbitrator attempts to mediate cases prior to a hearing.                           | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 25. Whether an arbitrator asks questions during hearings.   | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 26. An arbitrator's consistency in previous awards (reaching similar decisions in similar cases). | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 27. An arbitrator's availability to hear cases.   | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 28. An arbitrator's clarity in writing awards.  | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 29. Whether an arbitrator properly places the burden of proof in cases.                           | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |



|  | Very important |   |   | Not very important |   |   |   |
|--|----------------|---|---|--------------------|---|---|---|
| 30. Whether an arbitrator conducts an orderly hearing.                                       | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 31. Whether an arbitrator stays within his or her authority.                                 | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 32. An arbitrator's behavior in hearings.  | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 33. Whether an arbitrator gives weight to past practice when contract language is ambiguous. | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 34. Whether an arbitrator adheres to the record of the hearing in reaching decisions.        | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 35. Whether an arbitrator justifies his or her award based upon fact.                        | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 36. Whether an arbitrator requires due process in discipline and discharge cases.            | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 37. Whether an arbitrator thoroughly evaluates evidence and testimony of witnesses.          | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 38. Whether an arbitrator gives weight to pertinent citations of published cases.            | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 39. Number of books on the field of labor relations that an arbitrator has published.        | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 40. Whether an arbitrator is known to be courteous in conducting hearings.                   | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 41. Selection of older arbitrators for more difficult cases.                                 | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 42. Selection of male arbitrators for more difficult cases.                                  | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |
| 43. Selection of arbitrators with a PhD.   | 7              | 6 | 5 | 4                  | 3 | 2 | 1 |

|  | Very<br>important |   |   | Not very<br>important |   |   |   |
|--|-------------------|---|---|-----------------------|---|---|---|
| 44. Selection of arbitrators with<br>a law degree.   | 7                 | 6 | 5 | 4                     | 3 | 2 | 1 |
| 45. Selection of arbitrators who have<br>many years of arbitration<br>experience.                    | 7                 | 6 | 5 | 4                     | 3 | 2 | 1 |
| 46. Selection of arbitrators who have many<br>published arbitration awards.                          | 7                 | 6 | 5 | 4                     | 3 | 2 | 1 |
| 47. Selection of arbitrators who get<br>their awards out within ten days<br>after receipt of briefs. | 7                 | 6 | 5 | 4                     | 3 | 2 | 1 |
| 48. Selection of arbitrators who<br>are known to issue clear decisions<br>(do not split decisions).  | 7                 | 6 | 5 | 4                     | 3 | 2 | 1 |
| 49. Selection of an arbitrator who had<br>ruled for me in a previous case.                           | 7                 | 6 | 5 | 4                     | 3 | 2 | 1 |
| 50. Selection of an arbitrator who had<br>issued less awards in favor<br>of the other party.         | 7                 | 6 | 5 | 4                     | 3 | 2 | 1 |

SECTION TWO:

1. What is your current involvement in ad hoc labor arbitrations?  
 Management advocate.       Union advocate.
2. Are you an attorney?     YES     NO
3. How many arbitrations have you been actively involved in during the past 12 months?  
 Less than five.  
 5 - 10  
 More than ten. If more than ten, how many? \_\_\_\_\_
4. Are you normally involved in the process of determining the acceptability of ad hoc arbitrators from panels for striking?  
 YES     NO
5. How many arbitrators are normally on panels that you strike?  
 Three  
 Five  
 Seven  
 More than seven? If so, how many? \_\_\_\_\_
6. Which age group do you most prefer for arbitrators?  
 Under 40  
 40 - 49  
 50 - 59  
 60 - 69  
 Over 70
7. Which per diem fee rate do you most prefer for arbitrators?  
 Under \$200  
 \$200 - 300  
 \$300 - 400  
 \$400 - 500  
 Over \$500
8. Do you feel that an arbitrator's educational background makes any difference based on the issue involved?  
 YES     NO
9. Do you feel that, if you had more information about all the arbitrators on a particular panel, you would have a better chance of winning cases?  
 YES     NO
10. Do you use some arbitrator qualification reporting service in selecting arbitrators from a panel?  
 YES     NO

11. From which service organization do you receive most of your panels?  
[ ] FMCS  
[ ] AAA      Other \_\_\_\_\_
12. Do you feel that the information furnished to you from either FMCS or AAA concerning arbitrators' backgrounds is sufficient for selection of the best arbitrator from each panel?  
[ ] YES      [ ] NO

APPENDIX C  
COMPARISON OF ADVOCATE GROUP RESPONSES  
TO CRITERIA USING  $t$ -TEST ANALYSIS

COMPARISON OF ADVOCATE GROUP  
RESPONSES TO CRITERIA

| <u>value</u>  | <u>MEAN</u>  |              | <u>t</u> | <u>p-</u> |
|---|--------------|--------------|----------|-----------|
|   | <u>Mgmt.</u> | <u>Union</u> |          |           |
| <b>BACKGROUND FACTORS</b>                                     |              |              |          |           |
| Age of an arbitrator.   | 4.05         | 4.42         | 0.88     | 0.382     |
| Sex of an arbitrator.   | 3.30         | 2.50         | 1.96     | 0.054     |
| Arbitrator's race, color,<br>or national origin.              | 2.52         | 1.83         | 1.89     | 0.062     |
| Arbitrator's level of education.                              | 5.45         | 4.58         | 2.28     | 0.026*    |
| Arbitrator's occupation prior to<br>becoming an arbitrator.   | 5.78         | 6.44         | (2.99)   | 0.004*    |
| Years of arbitrator experience.                               | 5.72         | 4.97         | 2.36     | 0.022*    |
| Arbitrator's address.   | 2.80         | 2.67         | 0.31     | 0.759     |
| Arbitrator's current occupation.                              | 5.10         | 5.56         | (1.36)   | 0.178     |
| Older arbitrators for more<br>difficult cases.                | 3.68         | 3.00         | 1.58     | 0.118     |
| Male arbitrators for more<br>difficult cases.                 | 2.42         | 2.17         | 0.67     | 0.503     |
| Arbitrators with a PhD.                                       | 2.08         | 1.86         | 0.75     | 0.457     |
| Arbitrators with a law degree.                                | 3.88         | 2.39         | 3.32     | 0.001*    |
| Arbitrators who have many years<br>of arbitration experience. | 5.22         | 4.80         | 1.23     | 0.224     |

\* Statistically significant at least at the  $p = 0.05$  level.

| <u>value</u>  | <u>MEAN</u>  |              | <u>t</u> | <u>p=</u> |
|---|--------------|--------------|----------|-----------|
|   | <u>Mgmt.</u> | <u>Union</u> |          |           |
| <b>RECOGNITION FACTORS</b>  |              |              |          |           |
| Professional association membership.  | 3.45         | 3.67         | (0.50)   | 0.620     |
| Number of published awards.   | 4.40         | 3.52         | 2.15     | 0.035*    |
| Listing on several panels.  | 3.38         | 3.17         | 0.59     | 0.557     |
| Number of journal articles published on labor relations.                                  | 3.02         | 2.80         | 0.55     | 0.584     |
| Professional meeting, seminar, and conference participation.                              | 3.22         | 2.92         | 0.83     | 0.408     |
| Name recognition in labor relations community.  | 4.75         | 4.44         | 0.76     | 0.448     |
| Reputation for impartiality.  | 6.72         | 6.89         | (1.68)   | 0.097     |
| Nature of the issue involved.   | 6.02         | 6.33         | (1.27)   | 0.210     |
| Familiarity with an arbitrator from prior cases.  | 6.00         | 6.17         | (0.56)   | 0.577     |
| Familiarity with an arbitrator from comments by colleagues.                               | 5.72         | 5.14         | 1.79     | 0.078     |
| Familiarity with an arbitrator from source of information other than personal experience. | 5.40         | 5.17         | 0.72     | 0.473     |
| Number of books published in field of labor relations.                                    | 2.60         | 2.50         | 0.33     | 0.743     |
| Arbitrators who have many published arbitration awards.                                   | 4.35         | 3.42         | 2.17     | 0.033*    |

\* Statistically significant at least at the  $p = 0.05$  level.

| <u>value</u>  | <u>MEAN</u>  |              | <u>t</u> | <u>p-</u> |
|---|--------------|--------------|----------|-----------|
|   | <u>Mgmt.</u> | <u>Union</u> |          |           |
| <b>ARBITRATION PRACTICE FACTORS</b>                               |              |              |          |           |
| Fees and expenses charged.  | 2.90         | 4.28         | (3.55)   | 0.001*    |
| Past number of cases decided.                                     | 4.65         | 4.19         | 1.12     | 0.266     |
| Previous decline of a case<br>(turned down a case before).        | 3.02         | 3.42         | (0.86)   | 0.394     |
| Time taken to issue an award.                                     | 3.78         | 5.30         | (4.09)   | 0.001*    |
| Attempts to mediate cases prior<br>to a hearing.                  | 3.98         | 4.08         | (0.24)   | 0.814     |
| Asks questions during hearings.                                   | 4.55         | 4.86         | (0.78)   | 0.436     |
| Consistency in previous awards.                                   | 6.48         | 6.28         | 0.98     | 0.332     |
| Availability to hear cases.                                       | 4.80         | 5.11         | (0.89)   | 0.374     |
| Clarity in writing awards.  | 5.68         | 6.25         | (2.64)   | 0.010*    |
| Properly placing the burden of<br>proof in cases.                 | 6.28         | 6.58         | (1.37)   | 0.174     |
| Conduct of an orderly hearing.                                    | 5.95         | 6.11         | (0.66)   | 0.509     |
| Adherence to his or her<br>authority.                             | 6.75         | 6.14         | 2.79     | 0.007*    |
| Arbitrator's behavior in<br>hearings.                             | 5.48         | 5.78         | (1.05)   | 0.297     |
| Weighing of past practice when<br>contract language is ambiguous. | 5.90         | 6.50         | (2.60)   | 0.011*    |
| Adherence to the record of the<br>hearing in reaching decisions.  | 6.65         | 6.36         | 1.20     | 0.234     |
| Justification of award based<br>on fact.                          | 6.72         | 6.64         | 0.57     | 0.568     |
| Requirement of due process in<br>discipline and discharge cases.  | 6.08         | 6.78         | (3.62)   | 0.001*    |
| Thorough evaluation of evidence<br>and testimony of witnesses.    | 6.55         | 6.92         | (2.68)   | 0.010*    |



| <u>value</u>  | <u>MEAN</u>  |              | <u>t</u> | <u>p-</u> |
|---|--------------|--------------|----------|-----------|
|   | <u>Mgmt.</u> | <u>Union</u> |          |           |
| Weighing pertinent citations of published cases.        | 5.78         | 5.06         | 2.05     | 0.046*    |
| Courtesy in conduct of hearings.                        | 3.65         | 3.80         | (0.39)   | 0.701     |
| Get awards out within ten days after receipt of briefs. | 2.95         | 3.47         | (1.42)   | 0.161     |
| Known to issue clear decisions.                         | 5.90         | 5.78         | 0.46     | 0.645     |
| Ruled for me in a previous case.                        | 5.22         | 4.39         | 2.51     | 0.015*    |
| Had issued less awards in favor of the other party.     | 4.52         | 3.80         | 1.92     | 0.059*    |

\* Statistically significant at least at the  $p = 0.05$  level.

| <u>value</u>                 | <u>MEAN</u>  |              | <u>t</u> | <u>p-</u> |
|------------------------------|--------------|--------------|----------|-----------|
|                              | <u>Mgmt.</u> | <u>Union</u> |          |           |
| BACKGROUND FACTORS           | 4.00         | 3.60         | 2.09     | 0.040*    |
| RECOGNITION FACTORS          | 4.54         | 4.32         | 1.14     | 0.256     |
| ARBITRATION PRACTICE FACTORS | 5.17         | 5.33         | (1.10)   | 0.275     |

\* Statistically significant at least at the  $p = 0.05$  level.

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