

REVIEW AND EVALUATION OF THE USE OF BUS OPERATOR TESTING PROCEDURES IN THE PERSONNEL SELECTION PROCESS

WITHIN THE TRANSIT INDUSTRY



September 1981
Final Report
Under Grant DTUM60-80-C-72034

prepared by

Jordan-DeLaurenti & Associates, Inc.

Mary Jordan-DeLaurenti, Ph.D

Lorianne Palmer

Mary Margaret Zaenglein-Songer, Ph.D

NOTICE

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.



U.S. Department
of Transportation
Urban Mass
Transportation
Administration

Review and Evaluation of the Use of Bus Operator Testing Procedures in the Personnel Selection Process Within the Transit Industry

Office of Planning,
Management &
Demonstrations
Washington, D.C. 20950

Transportation Management Program

FINAL REPORT
September 1981

UMTA-IT-06-0252-80-1

September 1981

**Document is available to
the U.S. public through
the National Technical
Information Service
Springfield, Virginia 22161**

06184

HF
5549.5
.E5
R48

1. Report No. IT 06-0256		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle A Review and Evaluation of the Use of Bus Operator Applicant Testing Procedures in the Personnel Selection Process in the Transit Industry				5. Report Date December, 1981	
				6. Performing Organization Code DOT	
7. Author's: Mary Jordan-DeLaurenti, et. al.				8. Performing Organization Report No.	
9. Performing Organization Name and Address Jordan-DeLaurenti & Associates, Inc. 400 South Zang Blvd., Suite 924 Dallas, Texas 75208				10. Work Unit No. (TRAIS) DTUM60-80-C-72034	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D. C. 20590				13. Type of Report and Period Covered Review and Evaluation of Testing and Personnel Selection Procedures for Bus Operators, 1980	
				14. Sponsoring Agency Code	
15. Supplementary Notes					
16. Abstract The survey analyzed the selection practices of 97 transit systems in the United States. A 92 percent response to the survey was received from 39 large, 27 medium, and 31 small systems. The large population represented 85 percent of all publicly owned transit systems in the United States with over 300 bus operators. There is wide-spread use of interviews, testing, and training as screening tools in the selection process of bus operators. The University of Chicago Battery for the selection of bus operators is used as a screening tool by 65 percent of the systems in the study. The systems that used the Battery in 1980 hired 44 percent of the total number of bus operators hired by the sample. Recommendations are addressed to the management of the transit systems: to standardize their interview process; to train their interviewers in objective and fair interview practices; to decrease the number of applications screened in proportion to the number of bus operators hired to a ratio of 8:1; and, to evaluate the use of the Battery in a systematic way in regard to the factors of absenteeism, turnover, accident rate, and promotion potential.					
17. Key Words Bus Operator Hiring Testing Personnel Selection Transit University of Chicago Battery			18. Distribution Statement Available to the public through the National Technical Information Service Springfield, Virginia 22161		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages	22. Price

METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

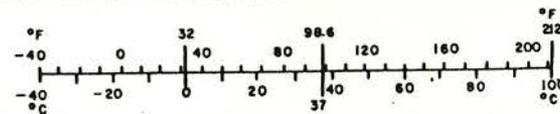
Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

* 1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SO Catalog No. C13.10-286.



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.6	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



PREFACE

The project staff would like to take the opportunity to convey special appreciation to the following individuals and transit systems for their important contribution to this project.

We extend special appreciation to the many transit systems that participated in the project. Their full cooperation and timely response demonstrated a strong interest in and commitment to human resources management in the transit industry. Perhaps this commitment can best be demonstrated by the fact that 97 out of 105 transit systems responded to the survey during the course of this study, representing a response rate of 92 percent.

We would like to especially thank the following transit systems for participating in the initial on-site interviews.

AC Transit	Oakland, California
Capital District Transportation Authority	Albany, New York
Chicago Transit Authority	Chicago, Illinois
CITRAN	Fort Worth, Texas
CNY Centro, Inc.	Syracuse, New York
Metropolitan Atlanta Rapid Transit Authority	Atlanta, Georgia
Metropolitan Transit Authority	Nashville, Tennessee
San Francisco Municipal Railway	San Francisco, California
South Bend Public Transportation Corporation	South Bend, Indiana

In addition, we want to express our appreciation to Dr. Frank E. Enty, Chief of Human Resources Development in UMTA, for his assistance throughout the course of the project.

To Alice Atchison, we wish to give final and special appreciation for her patient and persistent transference of our handwritten drafts into the typed medium.

It has been a privilege and pleasure to work with all of you during the last year.

To the transit systems, warm regards and best wishes for continued success.

Mary Jordan-De Laurenti

Mary Jordan-DeLaurenti, Ph.D.
President and Project Manager
Jordan-DeLaurenti & Associates, Inc.

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
I. INTRODUCTION	1
Purpose of the Study	1
Background Information	2
Organization of the Study	2
Organization of the Report	3
II. METHODOLOGY	5
On-Site Pilot Visits	5
Population Surveyed	6
Mail Questionnaire	6
Reporting Categories for Presentation of Results	7
Treatment of Data	8
Demographic Characteristics	8
III. RESULTS	13
General Characteristics of the Selection Process	13
Recruitment	15
Minimum Hiring Requirements	17
Applications	18
Testing and the Use of the University of Chicago Battery	19
Interview Process	30
Training	30
Probationary Period	33
Summary Of Findings	35
IV. CONCLUSIONS AND RECOMMENDATIONS	39
 <u>Appendices</u>	
A. BACKGROUND INFORMATION	A-1
B. LITERATURE REVIEW	B-1
C. GLOSSARY OF TERMS	C-1
D. LIST OF TRANSIT SYSTEMS TRAINED IN THE USE OF THE UNIVERSITY OF CHICAGO BATTERY THAT WERE SENT QUESTIONNAIRE	D-1
E. CHARACTERISTICS OF POPULATION SURVEYED	E-1
F. SAMPLE CORRESPONDENCE TO TRANSIT SYSTEMS	F-1
G. INTERVIEW INSTRUMENT FOR ON-SITE VISITS	G-1

H.	LIST OF TRANSIT SYSTEMS AT WHICH ON-SITE INTERVIEWS WERE CONDUCTED	H-1
I.	MAIL QUESTIONNAIRE	I-1
J.	REFERENCES	J-1

LIST OF TABLES

Tables

II-1	Publicly-Owned Systems Serving Populations of Over 50,000 by Number of Buses Operated	9
II-2	Bus Operators Represented in Study by Size of System	9
II-3	Male Bus Operators by Size of System in This Study	10
II-4	Male Bus Operators by Race and Size of System in This Study	11
II-5	Female Bus Operators by Size of System in This Study	11
II-6	Female Bus Operators by Race and Size of System in This Study	12
III-1	Use of Selection Procedures for Bus Operators by Size of System	14
III-2	Methods of Recruiting Bus Operator Applicants by Size of System	16
III-3	Ratio of Number of Bus Operator Applications to Number of Hires	19
III-4	Use of the University of Chicago Battery Among Systems in Study	21
III-5	Full-Time Bus Operators Employed by Size of Systems and by Use of Male Battery	22
III-6	Use of Battery Among Large Systems by Number of Bus Operators Employed	23

III-7	Length of Use of University of Chicago Battery by Size of System	24
III-8	Advantages in the Use of the Battery	25
III-9	Disadvantages in the Use of the Battery	26
III-10	How Systems Perceive The Use of the Battery and Its Relations to the Factors of Absenteeism, Turnover, Accident Rate, and Promotion Potential	28
III-11	Number of Hours of Classroom Training for Bus Operators By Size of Systems	31
III-12	Reasons for Dropping Bus Operators during the Hiring Process	33

I. INTRODUCTION

The selection of bus operators is a significant issue in the human resource management of the transit industry. Managers and personnel specialists within the industry recognize that an effective selection process for bus operators must fulfill two objectives:

- . To select applicants who can successfully perform the required job functions and meet the responsibilities of the position, and
- . To ensure that the selection procedures comply with the Uniform Guidelines on Employee Selection and, thereby, provide for equal employment opportunity without discrimination on the ground of race, color, sex, religion, or national origin (EEOC, 1978).

The purpose of this project was to identify the current practices of recruitment, testing, selection, and training of bus operator applicants within the public transit industry. The project's scope was limited to those employment practices and selection procedures which pertain to the hiring of bus operators. The scope, therefore, excluded any selection procedures which did not pertain to the permanent hiring of bus operator applicants.

The definition of employee selection procedures which served as the basis for this study was taken from the Uniform Guidelines on Employee Selection Procedures (1978). The Guidelines define a selection procedure as:

Any measure, combination of measures, or procedure used as a basis for any employment decision. Selection procedures include the full-range of assessment techniques from traditional paper and pencil tests, performance tests, training programs, or probationary periods and physical, educational, and work experience requirements through informal or casual interviews and unscored application forms.

The population surveyed in this study, in accordance with the contract's statement of work, was limited to those transit systems in the United States which have received training on the use of the Validated Test Battery developed by the University of Chicago.

Background

In 1969, transit leaders in the United States established a committee to address serious manpower problems facing the industry. One of the projects considered by the committee was the problem of recruitment and selection of qualified personnel to operate transit equipment while ensuring that the hiring procedures would comply with the Civil Rights Act of 1964 and its amendments (Baehr, 1976, p. 2).

In 1970, UMTA awarded a contract to the Massachusetts Bay Transportation Authority (MBTA) to undertake a project to provide the urban transportation industry with a validated test battery to be used as a tool for the selection of bus operators. The MBTA subcontracted the implementation of the study to the Industrial Relations Center of the University of Chicago. Project work began in August, 1970. The project was completed in 1975 with the successful development of a validated test battery for male bus operators. As early as 1974, the Industrial Relations Center began conducting a series of training sessions in the administration of the male test battery for transit systems (Baehr, 1976).

With additional funding from UMTA to the MBTA for a project extension, the Industrial Relations Center completed work on a second project which validated the test battery for female bus operators (Baehr, 1980).

In May, 1980, UMTA entered into an agreement with Jordan-DeLauarenti & Associates, Inc. to provide a study entitled "Review and Evaluate the Role of Bus Operator Testing Procedures in the Personnel Selection Process within the Transit Industry." Work commenced on the study in June, 1980, and was completed in July 1981.

The objective of the study was to provide the transit industry with up-to-date information on the recruitment and selection practices currently used by those systems that had received training in the University of Chicago test batteries validated for male and female bus operators.

Organization of Study

The following tasks were performed in this project:

- . Published literature was reviewed on:
 - . Models of testing and personnel selection of motor vehicle operators;
 - . EEO laws, regulations, and other requirements;
 - . Historical and current use of bus operator applicant testing procedures.

- . Current status was determined of bus operator applicant recruitment, testing, selection, and training practices within the surveyed population.
 - . Interviews were conducted at nine transit systems.
 - . A mail questionnaire was designed and mailed to 105 transit systems.
 - . Data was collected, edited, and coded from the responses of 97 transit systems.
- . Survey data was analyzed and evaluated.
- . Findings were documented and recommendations were developed.

Organization of Report

The literature review is presented in Appendix B. Section II presents the methodology and demographic characteristics of the respondent group in the survey. Section III presents the results. Section IV presents the conclusions and recommendations.

The appendices contain a glossary of terms, demographic characteristics in tabular form, the literature review, the interview instrument, correspondence, the mail questionnaire, and the list of population surveyed.

II. METHODOLOGY

The methodology for this study was organized into two phases. The first phase included an on-site pilot survey in which initial data was gathered through use of a structured interview instrument (see Appendix G). The data gathered from this phase of the study was then used in the development of the survey instrument which was used in the second phase. The latter phase consisted of surveying systems by means of a mailed questionnaire (see Appendix I).

ON-SITE PILOT VISITS

On-site visits were made to nine systems during October, 1980. Interviews were pre-arranged with knowledgeable persons at each system concerning the current procedures for selection of bus operator applicants in their system. The objective of the on-site visits was to become familiar with the industry's recruitment and hiring procedures.

All systems selected for the on-site visit had been trained by the University of Chicago in the use of the University of Chicago Test Battery for Bus Operator Applicants.

The selection of these systems for on-site visits also was based on the following criteria:

1. Size of population served by the system. Large, medium, and small areas were identified.
2. Size of system (number of buses operated by the system). The intent was to include a variance in organizational complexity based on size.
3. Geographical location. Systems were located in the Northeast, Southeast, Southwest, West, and Midwest.
4. Length of time of use of the University of Chicago Battery for bus operator applicants. Interviews were conducted in systems who implemented it in the early 1970's.
5. Labor pool. Interviews were conducted at systems where there was racial diversity in the labor pool.

A structured interview form was used at each system. This form requested information on the selection procedures and training practices used by the systems. Interviews lasted from

two to four hours. In some systems, more than one person was interviewed at the recommendation of the contact person within the system. A copy of the interview form may be found in Appendix G. A list of those systems interviewed during the on-site visits can be found in Appendix H.

Excellent cooperation was encountered at each system. The material gathered during the on-site visits was used as a basis for the construction of the final survey instrument.

POPULATION SURVEYED

The survey was mailed to 105 transit systems in the United States. The mailing list of systems used by J-DL was generated from a list compiled by Dr. Melany Baehr at the University of Chicago (received by Jordan-DeLaurenti & Associates, Inc. on September 22, 1980). This list contained a total of 115 systems which had received training from the University of Chicago in the utilization of the Battery for male and/or female bus operator applicants.

Ten systems on the original list were excluded from the final DOT survey mailing list because they did not fit the scope of the contract under which this study was conducted.

MAIL QUESTIONNAIRE

ON December 12, 1980, an introductory letter was sent to the remaining 105 bus systems describing the DOT study to seek their cooperation and to advise them of the mailing date of the questionnaire. A list of these systems can be found in Appendix D. This letter also included a postcard which the systems were asked to complete and return to J-DL (refer to Appendix F). This card was used to identify the name of the individual to whom the survey should be mailed for each system. A total of 90 systems returned this postcard to J-DL.

On January 7, 1981, a cover letter and the questionnaire were sent to 105 systems. A total of 97 responses were returned. This represented a 92.4% return rate. Follow-up calls were made to several systems to encourage their return of the survey. Eight systems did not return their survey. Nevertheless, this extraordinarily high return rate demonstrates the interest of the properties in the use of human resources and particularly in the hiring process.

The population used for reporting the results of this survey was limited to those 97 transit systems that had been trained in the use of the University of Chicago Battery and who, had returned the survey instrument.

Subsequent to the return of the completed questionnaires, follow-up telephone calls were made to those systems that reported that they had never implemented the Battery. The objective of the telephone calls was to ask the question, "For what reason or reasons has your system not implemented the University of Chicago Battery?" Responses were recorded during the telephone follow-up interview and are reported in this report in the results section.

REPORTING CATEGORIES FOR PRESENTATION OF RESULTS

The results of this survey are reported in terms of all systems which responded to the questionnaire. This category is called the total sample.

Categories of large, medium, and small systems were also used. Because this project is an organizational analysis of selection and hiring procedures for bus operator applicants, the criteria used for dividing the systems into large, medium, and small categories was the number of full-time bus operators employed at each system. These categories were based on the following criteria:

Large Transit Systems

Those which employ 300 or more full-time bus operators. Thirty-nine (39) of these systems returned the survey.

Medium Transit Systems

Those which employ between 100 and 299 full-time bus operators. Twenty-seven (27) of these systems returned the survey.

Small Transit Systems

Those which employ less than 100 full-time bus operators. Thirty-one (31) of these systems returned the DOT survey.

Treatment of Data

The answers on the survey instrument were categorized, coded, and transferred to standardized answer sheets. These sheets were then "read" by an optic scanner and tabulated by the scanner for presentation in tabular form. The open-ended questions were tabulated through content analysis and coded on the answer sheets. The data is reported in terms of raw numbers and percentages.

DEMOGRAPHIC CHARACTERISTICS

Population Served

Ninety-eight percent of the transit systems reported serving a population area of over 50,000 people. Appendix A describes the percent of systems and the population size they serve as well as the number of buses they operate.

In the United States and its territories, in urbanized areas with over 50,000 population there are 44 publicly-owned systems which operate more than 300 buses (Directory, 1980). (Only four of the systems in this category were not trained in the use of the University of Chicago Battery.) In this category, 85 percent were respondents in this study. Table II-1 indicates the number of publicly-owned systems and their representation in this study according to number of buses operated.

There are 36 publicly-owned systems which operate 100 or more motor buses but less than 300. In this category, 78 percent were respondents in this study.

There are 241 publicly-owned systems which operate less than 100 motor buses. In this category, 14 percent were respondents in this study.

Of those systems serving areas of 50,000 population or less, there are 189 publicly-owned systems. In this category, two percent were respondents in this study.

TABLE II-1
 PUBLICLY-OWNED SYSTEMS SERVING POPULATIONS
 OF OVER 50,000 BY NUMBER OF BUSES OPERATED

Number of Buses Operated	Number of Publicly-Owned Systems N	Percent of Systems in Study %
300 or more	44	85
100 - 299	36	78
Less than 100	241	14

Number of Bus Operators

Table II-2 describes the number of bus operators employed by the systems in this study. There were 58,949 full-time bus operators represented by systems in this study. The small system employed a total of 1474 bus operators. The medium systems employed 4,891 bus operators. The large systems employed 52,584 bus operators or 89 percent of all the bus operators represented in this study.

TABLE II-2
 BUS OPERATORS REPRESENTED IN STUDY
 BY SIZE OF SYSTEM

Size of Properties	Number of Bus Operators	Percentage of Total
Large	52,584	89
Medium	4,891	8
Small	1,474	3
Total	58,949	100

Characteristics of Race and Sex of Bus Operators

Male Bus Operators

The respondents reported that 88 percent of their total bus operator work force was male. The large systems employed 90 percent of the total number of male bus operators in the study, the medium systems employed eight percent, and the small systems employed two percent.

The representation by race of males represented in the study was 48 percent white, 44 percent black, and eight percent hispanic. The racial representation of males in the large systems was approximately the same as is reflected in the total sample. The racial representation of males in the medium system was 64 percent white, 29 percent black, and six percent hispanic. The racial representation of males in the small systems was 61 percent white, 31 percent black, and 8 percent hispanic. (See Tables II-4 and II-6).

TABLE II-3

MALE BUS OPERATORS BY SIZE OF SYSTEM IN THIS STUDY

Size of System	Number of Males	% of Total Number of Males
Large	48,740	90
Medium	4,107	8
Small	1,328	2
Total	54,175	100

TABLE II-4

MALE BUS OPERATORS BY RACE AND
SIZE OF SYSTEM IN THIS STUDY

Size of System	Black %	White %	Hispanic %
Large	46	46	8
Medium	29	64	6
Small	31	61	8
Total	44	48	8

Female Bus Operators

Of the 12 percent of bus operators who were female in the study, 83 percent were employed in the large systems, 12 percent were located in the medium-sized systems and five percent were employed in the small systems (See Table II-5).

Of the total number of females in the study, 63 percent were black, 32 percent were white and four percent were hispanic. The racial distribution of females within the large systems approximated the distribution within the total. Within the medium and small systems, five percent of the females were hispanic. The white and black population was evenly distributed. Table II-8 reflects this distribution.

TABLE II-5

FEMALE BUS OPERATORS
BY SIZE OF SYSTEM IN THIS STUDY

Size of System	Number of Female Bus Operators	% of Total Number of Females
Large	5,905	83
Medium	838	12
Small	344	5
Total	7,087	100

TABLE II-6
 FEMALE BUS OPERATORS
 BY RACE AND SIZE OF SYSTEM
 IN THIS STUDY

Size of System	Female Bus Operators		
	Black %	White %	Hispanic %
Large	67	25	8
Medium	6	49	5
Small	47	48	5
Total	63	32	4

III. RESULTS

GENERAL CHARACTERISTICS OF THE SELECTION PROCESS

Components of the Selection Process

The questionnaire requested information on seven general areas pertaining to the process of selection of bus operators. They are:

1. Recruitment
2. Minimum Hiring Requirements
3. Applications
4. Testing
5. Interviews
6. Classroom and Performance Training
7. Probationary Period

The systems were asked to list the selection procedures in the order in which they occur in the hiring process. In response, over 90 percent of the systems reported that they used four common procedures: background check, interview, physical examination, and training. Eighty-two percent administer a written test. Seventy-eight percent screen the applications for meeting minimum hiring requirements. Forty-four percent of the systems use an initial screening interview. See Table III-1 for the use of selection procedures by size of transit system.

Number of Bus Operators Hired in 1980

The systems were asked to indicate the number of bus operators hired during 1980. There were 9,077 bus operators hired by the systems in this study during 1980. Four systems hired no bus operators.

The large systems hired a total of 7,889 bus operators, the medium hired a total of 837, and the small hired a total of 351. All of the small and medium systems reported that they hired less than 100 bus operators in 1980. Among the large systems, 54 percent reported hiring less than 100 bus operators, while 27 percent reported hiring from 100-299 bus operators, and 16 percent reported hiring 300 or more bus operators.

In 1980, the systems hired 3,019 part-time operators. This was 31 percent of all operators hired that year. Ninety-two percent of these part-time operators were hired by large systems. Sixty percent of the bus systems reported that they did not hire part-time bus operators.

TABLE III-1
 USE OF SELECTION PROCEDURES FOR BUS OPERATORS
 BY SIZE OF SYSTEMS
 (Reported in Percents)

<u>Selection Procedures</u>	<u>Total</u> %	<u>Large</u> %	<u>Medium</u> %	<u>Small</u> %
SCREEN APPLICANTS	78	72	89	77
CONDUCT INITIAL SCREENING INTERVIEW	44	31	63	45
ADMINISTER WRITTEN TEST	82	85	81	81
CONDUCT BACKGROUND CHECK	90	92	85	90
CONDUCT INTERVIEW	92	92	81	100
REQUIRE PHYSICAL EXAMINATION	96	100	100	87
CONDUCT TRAINING	96	95	93	100

Thirty percent reported that the number of part-time operators represented 1 - 9 percent of the total number of operators employed. Only ten of the bus systems reported that the number of part-time operators employed represented ten percent or more of the total population employed.

Locus of Control of the Selection Process

Eighty-six percent of the systems indicated that they had a formal personnel unit which controls the selection process in their system. Of those who reported that they did not have a formal personnel unit, nine systems were in the small category and four were in the medium category.

Only 11 percent of the systems reported that they used other agencies for accepting and screening applicants. Of those that reported using other agencies for applicants, six reported that the agencies also administered the testing of applicants for bus operators. This is a relatively small number of systems which used outside agencies. It also indicates that almost all systems retain control over the selection and testing of applicants.

RECRUITMENT

Methods of Recruiting

Bus systems focused their efforts on three principal methods of recruiting bus operators: media advertising, referrals of employees, and contact with minority and women's organizations. Over 75 percent of the systems used media advertising. Recruitment based on the recommendations of other employees was a frequently used method. Among the medium systems, 81 percent used this method. Sixty four percent of the large systems and less than half (48 percent) of the small systems used employee recommendations for recruitment.

In recruitment through minority and women's organizations, the small systems showed the least use with only 42 percent reporting this as a method used; whereas, over half of the medium systems (56 percent), and 72 percent of the large systems reported using these organizations as contacts for recruitment.

Small systems used employment agencies for recruiting to a greater degree than did medium and large systems. About 25 percent of the large and medium size systems used employment agencies. The large systems use educational institutions as sources of recruits (38 percent) slightly more than did the small and medium systems (32 and 33 percent respectively). See Table III-2 for the percent of systems reporting the use of various recruitment methods.

TABLE III-2

METHODS OF RECRUITING BUS OPERATOR APPLICANTS
 BY SIZE OF PROPERTIES
 (Reported in Percents)

<u>Methods of Recruiting</u>	<u>Large</u> %	<u>Medium</u> %	<u>Small</u> %
Media Advertisements	82	78	74
Employment Agencies	23	22	39
Educational institutions such as schools, vocational rehabilitation centers, etc.	38	33	32
Minority and women's organizations and/or community centers	72	56	42
Recommendations of bus operators or other employees of your system	64	81	48

Problems Regarding Recruitment

- . Forty-four systems reported no problems in recruiting applicants for bus operators. Of these, 16 were small, 14 were medium, and 14 were large.
- . Thirteen systems, eight of which were medium, reported that there were not enough qualified applicants.
- . Seventeen systems, 11 of which were large, reported problems of not having enough minority and female applicants.
- . Twenty-nine of the large systems mentioned no problems with recruiting women, yet 41 percent of these have less than 10 percent female representation among bus operators.
- . Fourteen systems reported that they received too many applications.

Minimum Hiring Requirements

Sixty-one percent of the systems indicated that their minimum hiring requirements were available in writing to prospective employees. Twenty-seven percent of the large systems, 44 percent of the medium, and 37 percent of the small systems reported that their minimum hiring requirements were not available to prospective employees.

When asked to list the minimum requirements for bus operators, respondents most often indicated age, satisfactory driving record, high school education, and clear police record. Minimum age requirements among the three categories of systems ranged from eighteen to twenty-five years. Among the small and medium systems, respondents reported some requirements which can be viewed as subjective:

- "good background"
- "acceptable appearance"/
- "suitable appearance"
- "high school level intelligence"
- "good moral character"
- "good work habits"
- "good work record"

These subjective requirements were not cited by large systems.

In several responses, the data regarding minimum hiring requirements appeared incomplete. For example, age requirements were omitted. The apparent incompleteness of this data generated some concern about possible implications for the availability of uniform and standard requirements within those systems.

Of those thirty-five systems that reported that they hired part-time bus operators, eight stated that they had different requirements for part-time operators than for full-time operators. Several of these reported relaxing requirements in terms of work history and hours of availability for part-time bus operators.

Applications

Number of Applications Taken in 1980

The systems were asked specifically to indicate the total number of applications taken in 1980. The large systems took 79,899 applications, the medium systems took 9,425 applications, and the small systems took 4,057 applications. Twelve systems indicated that they did not take applications during 1980. These included eight large, one medium, and three small systems.

Of those systems that took applications, only 18 percent took less than 100 applications. Twenty-five percent took between 100 and 500 applications. The remaining 56 percent took over 500 applications.

Forty-six percent of all systems reported that they took applications on a walk-in basis, at anytime. Thirty-seven percent reported that they took in applications more than once a year, at specified times. Twelve percent of the systems reported that they took in applications once a year. Five percent reported that they used other methods.

The large systems tended to hold the application on active file for a longer time than did the medium or small systems. Thirty-eight percent of them reported that they held the application for more than a year, as compared to 15 percent of the medium and 10 percent of the small systems.

Ratio of Number of Bus Operator Applications to Number of Hires in 1980

The total number of applications taken by large systems for bus operator positions in 1980 was 79,899. The total number of full-time and part-time hires was 7,889. The systems averaged ten applications for every one operator hired. A further analysis indicated that one large system took in 21,025 applications for 221 hired. In order to determine a better representative ratio for all the systems, this system was

excluded and the adjusted ratio indicated that eight applications were taken in for every one bus operator hired. See Table III-3.

TABLE III-3
RATIO OF NUMBER OF BUS OPERATOR APPLICATIONS
TO NUMBER OF HIRES IN 1980

Size of Systems	Number of Applications	Number of Hires	Ratio of Applications to Hires
Large*	58,774	7,889	8:1
Medium	9,425	837	11:1
Small	<u>4,057</u>	<u>351</u>	<u>12:1</u>
Total	72,256	9,077	8:1

*This total excludes one system which took in over 21,000 applications and hired only 221 bus operators. This computation better represents the ratio of the large group. The real total for the large category is 79,899 and the ratio was 9:1.

The small and medium systems took considerably more applications for each operator hired than did the large systems. The medium systems took eleven applications for every one hire and the small systems took twelve applications for every one hire.

The ratio of applications to number hired for all systems was 8:1.

TESTING AND THE USE OF THE UNIVERSITY OF CHICAGO BATTERY

Testing Procedures

In response to the questions on testing, 83 percent of the systems reported that they administered tests to bus operator applicants prior to the training.

These systems identified a variety of tests used prior to the training period. As expected, the University of Chicago Battery is the most frequently used. Sixty-five percent of the systems reported use of the Battery prior to training. Of the remaining systems which tested prior to training, 16 percent offered paper

and pencil tests that evaluate knowledge related to driving such as map reading, vehicle control, road signs, and driver safety. The other types of tests most frequently reported as administered were:

- . Personal Opinions
- . Simple Computations
- . Telling Time
- . Writing
- . Reading

In response to the question on the advantages of tests, other than the University of Chicago Battery, the systems reported that the tests:

- . Screen out people who do not read and write English.
- . Screen for those who can read and write job-related material.
- . Test for ability to compute time.
- . Screen for basic language and prohibitive physical problems.
- . Determine pre-training needs.
- . Determine basic intelligence level.

One system reported the use of a Battery, other than the University of Chicago Battery, as one that has been validated.

USE OF UNIVERSITY OF CHICAGO BATTERY

Extent of Use of Battery

Ninety-seven systems responded to this study. Of these, sixty-five systems at the time of this study used the Battery as a selection procedure for male bus operators. Of those sixty-five systems, twenty were large, twenty-one were medium, and twenty-four were small. Sixty-one systems used the Battery as a selection procedure for female bus operators.

Eleven systems reported that they had used the Battery at one time but have since discontinued its use for male bus operators. Seven of these were large, two were medium, and two were small systems. Twenty-one systems reported never having used the Battery validated for males. Twelve of these were large, four were medium, and five were small systems.

Thirty-four systems reported never having used the Battery validated for females. Fifteen of these were never trained in the use of the female Battery. Nineteen of these thirty-four were large, six were medium, and nine were small systems.

Table III-4 lists the number of systems that have used the Battery, the percent of the total population, and the percent according to size.

TABLE III-4

USE OF THE UNIVERSITY OF CHICAGO BATTERY
AMONG SYSTEMS IN STUDY

	SYSTEMS							
	Total		Large		Medium		Small	
	(N)	%	(N)	%	(N)	%	(N)	%
Presently Use Male Battery	(65)	67	(20)	51	(21)	78	(24)	77
Never Used Male Battery	(21)	22	(12)	31	(4)	15	(5)	16
Used Male Battery But Stopped Using It	(11)	11	(7)	18	(2)	7	(2)	7
Presently Use Female Battery	(61)	63	(20)	51	(19)	17	(22)	71
Do Not Use Female Battery	(34)	35	(19)	49	(6)	22	(9)	29
Used Female Battery But Stopped Using It	(2)	2	(0)	(0)	(2)	7	(0)	0

Table III-5 shows that use of the University of Chicago battery for males was in inverse proportion to size of the bus system. That is, as the number of bus operators employed increased, use of the male battery decreased.

The category of large systems represented 90 percent of the bus operators in this study. The large systems which used the Battery employed approximately 40 percent of the bus operators in all of the large systems in this study. The medium systems which used the Battery employed 78 percent of the bus operators in all of the medium systems in this study. The small systems which used the Battery employed 82 percent of the bus operators in all of the small systems in this study.

TABLE III-5

FULL-TIME BUS OPERATORS EMPLOYED BY
SIZE OF SYSTEM AND USE OF MALE BATTERY

Percent of Bus Operators

<u>Systems</u>	Total %	Large %	Medium %	Small %
<u>Use of Battery</u>				
Now Use	44	40	78	82
Never Used	37	40	14	11
Discontinued Use	19	20	8	7

Within the large systems category, the total number of bus operators employed in each system ranged from 313 in the smallest to 5364 in the largest. Because of the findings in Table III-5 the analysis was further refined by reviewing these large systems in the following sub-categories: systems with 300 - 999 bus operators; systems with 1000 - 1999 bus operators; and systems with over 2000 bus operators. Table III-6 details the results of the analysis.

TABLE III-6

USE OF BATTERY AMONG LARGE SYSTEMS
BY NUMBER OF BUS OPERATORS EMPLOYED

Percent of Systems Using the Chicago Battery

<u>Number of Bus Operators</u>	<u>Now Use</u> %	<u>Never Used</u> %	<u>Discontinued</u> %
300 - 999	50	32	18
1000 - 1999	73	9	18
2000 +	17	66	17

It is important to note that only 17 percent of the systems with a population of over 2000 bus operators reported using the Battery. Seventy-three percent of the systems in the 1000 - 1999 category used the Battery and 50 percent of the 300 - 999 category used the Battery.

Length of Use of Battery

The experience record of the respondents of the study is substantial in the length of time they have used the Battery. Fifty-four percent of the sixty-five systems using the Battery validated for males have used it for over three years. Twenty-six percent have used the Battery from one to two years, and 20 percent have used the Battery for less than one year. Among the large systems, 75 percent have been using the Battery for three or more years. Table III-7 illustrates the length of use of the Battery.

Number of Operators Hired and the Use of the Battery

Among the total population of 9,077 bus operators that were hired in 1980 by the study sample, 44 percent were hired by systems that utilized the University of Chicago Battery in their selection process. Systems that did not use the Battery hired 28 percent more bus operators than those which do use the Battery.

Among the small systems, 71 percent of the total number of operators hired were in systems which reported using the Battery.

Among the medium systems, 81 percent of the total number of operators hired were in systems which reported using the Battery. In the large systems, only 39 percent of the bus operators hired were employed by systems which reported using the Battery. The largest five systems which accounted for the hiring of 1,994 bus operators (22 percent of all bus operators) did not use the Battery.

TABLE III-7

LENGTH OF USE OF
UNIVERSITY OF CHICAGO BATTERY
BY SIZE OF SYSTEM

Number and Percent of Systems Using the Battery

<u>Years the Battery Has Been Used</u>	<u>Total</u>		<u>Large</u>		<u>Medium</u>		<u>Small</u>	
	(N)	%	(N)	%	(N)	%	(N)	%
Less than One Year	(13)	20	(3)	15	(6)	29	(4)	17
One to Two Years	(17)	26	(2)	10	(3)	14	(12)	50
Three or More Years	(35)	54	(15)	75	(12)	57	(8)	33

Advantages of the Use of the Battery

The systems were asked to list advantages in using the Battery. The most frequently mentioned response was the Battery's ability to screen desirable applicants. Of the sixty-five systems, which used the Battery, 78 percent reported this reason. "Desirable applicant" was not defined for the systems. A number of systems listed specifically what they meant. The words used to describe "desirable applicant" were: long-term operators, safe, courteous, conscientious, dependable, loyal employees with better attendance records, and happier employees. The majority of systems, however, defined the "desirable applicant" subjectively as "good", "better employee", "qualified candidate", "those who perform well, or who are skilled".

Twenty-two percent specifically mentioned that the test would protect them from law suits stemming from equal employment laws. Twenty percent reported that an advantage was the fact that the test has been validated; 18 percent used objective selection as an advantage of the use of the Battery; and 13 percent said that it saved them time and money in the selection process.

Thirteen percent said they saw no advantages or reported they do not have enough data to form an opinion. There was no difference in responses from systems in the three categories. Table III-8 lists the above data.

TABLE III-8

ADVANTAGES IN THE USE OF THE BATTERY

<u>Advantages Listed</u>	<u>Percent (%) of Systems Listing Advantages</u>
Screen Desirable Applicants	78
Legal Protection	22
Validated Test	20
Objective Selection	18
Efficient Use of Time and Money	13
No Advantage or No Opinion	13

Disadvantages of the Use of the Battery

The systems were also asked to list any disadvantages in the use of the Battery. Twenty-five percent saw no disadvantages or listed no disadvantages of using the Battery. Of the remaining systems, there was a variety of disadvantages listed. Twenty-five percent stated that the Battery does not screen out applicants who cannot perform well because of low mental ability or poor educational background. Eleven percent listed as a disadvantage the amount of time necessary for test administration. Eight percent stated that the lack of face validity is a disadvantage. Some indicated that the applicants felt the test questions are irrelevant in determining skills for driving a bus. Six percent stated the Battery does not select drivers with promotion potential, and six percent stated that the Battery eliminates the young and single applicants. Table III-9 lists these percentages.

TABLE III-9

DISADVANTAGES IN THE USE OF THE BATTERY

<u>Disadvantages Listed</u>	<u>Percent of Systems Listing Disadvantages</u>
No Disadvantage	25
Does Not Screen Out Applicants of Low Mental Ability or Poor Educational Background	25
Too Much Time	11
No Face Validity	8
Does Not Screen For Promotion Potential	6
Eliminates Young and Single Applicants	6

Relationship of Use of Battery to Absenteeism, Turnover, Accident Rate, and Promotion Potential

Baehr wrote that the intent of the development of the validated test Battery was to help in hiring operators who would "adapt well to training, become reliable employees, operate with low accident rates, tend to generate a favorable public image, find the work personally satisfying (with a reduction in personnel turnover), and have potential for promotion" (Baehr, 1976).

The systems were asked to comment on the effects of the use of the Battery in terms of four of these factors: reducing absenteeism, reducing the accident rate, reducing turnover, and selecting persons with promotion potential. At least 37 percent of the systems using the Battery stated that they did not have enough information or evidence to assess any of these four factors.

Twenty-nine percent of the systems said that absenteeism has decreased while 22 percent said it has not changed, and 9 percent reported that absenteeism has increased. According to a recent study of bus operator absenteeism in transit systems, it was found that sick leave and job-related injury leaves have increased by 24 percent and 148 percent respectively, between 1974 and 1978. This study has not been analyzed for comparative data of the systems in this survey (Peat, Marwick, Mitchell & Co., 1981, p. V.2).

Thirty-one percent indicated that turnover has decreased. Twenty-five percent reported that there has been no change in turnover, and only three percent reported turnover has increased.

Twenty-one percent of the systems reported that the accident rate has decreased. Almost 30 percent said there has been no change in the accident rate, and three percent said it has increased.

Table III-10 describes these findings. There is little evidence that these four factors have been affected by the use of the Battery since there was no pre. and post Battery comparative data. The findings mainly reflect the perceptions of the systems. As such, they are indicators of the need for systems to keep records for further analysis.

TABLE III-10

HOW SYSTEMS PERCEIVE THE
 USE OF THE BATTERY AND ITS RELATION TO
 THE FOUR FACTORS OF
 ABSENTEEISM, TURNOVER, ACCIDENT RATE, AND PROMOTION POTENTIAL

<u>Perceptions of Factors</u>	<u>FACTORS</u>			
	<u>Absenteeism</u> %	<u>Turnover</u> %	<u>Accident Rate</u> %	<u>Promotion Potential</u> %
Decreased	29	31	21	25
No Change	22	25	30	27
Increased	9	3	3	7
No Evidence	37	37	40	40

Systems That Discontinued Use of the Battery

Of those 11 systems which discontinued the use of the Battery, eight systems reported that the Battery did not select better applicants than when it was not used. Of these eight, three felt it screened out the better applicants. Four of the eleven raised concerns about the validity of the test. Four systems expressed that they had problems with the face validity of the University of Chicago Battery. Applicants, employers, the union and/or the management felt the personal questions on the battery were invasions of the candidate's privacy.

- Of the eleven systems that discontinued the use of the Battery, only two had less than a year's experience. Five had more than three years experience. The average for all these systems was 2.4 years of experience in using the Battery.

Systems That Never Used the Battery

A telephone survey was conducted among the 22 systems which have never used the Battery, even though some employees were trained to use it. Fifteen responded to the telephone inquiry. Eleven of these systems were large and four were medium. Eight systems said they did not know why the Battery was not implemented because the person who was trained was no longer working at the system. Six systems objected to the test content. Three systems, all medium systems, planned to use the Battery in the future.

The Unions and the Use of the Battery

Little concern by unions about the use of the Battery was reported. When asked about the opinions of the union toward the use of the University of Chicago Battery, 48 percent responded that they did not know how the union felt about the use of the Battery and 20 percent stated that the union did not care if the Battery was used. Ten percent of the systems stated that their unions support the use of the Battery, and three percent stated their unions were opposed to the use of the Battery. Six percent of the transit systems did not have unions.

LEGAL CHALLENGES

The systems were asked if they had had any legal problems relating to testing, and if so, to list these problems. A total of ten systems reported having had legal problems related to testing in the hiring of bus operators. Half of these specifically reported legal challenges to the Battery. Of these, two reported subsequent discontinuation of the Battery because of the press and internal pressure. No system reported a negative legal decision on the Battery. Among those that had never implemented the Battery, one system reported legal problems pertaining to an item on another test.

TESTING NEEDS

The systems were asked to state what needs they had in regard to future testing. Sixty-seven percent of the systems listed no needs in regard to future testing.

Thirty-three percent of the systems expressed needs in regard to future testing. Among this group the most frequently mentioned need was a test that screened for job-related skills. All of these respondents were from larger systems that have never used the Battery or have discontinued its use. They represented 25 percent of those which expressed needs. The other most frequently mentioned needs were for intelligence tests, emotional adjustment ratings, and passenger relations capability. Each of these needs was expressed by 14 percent of those who responded to the item.

Of those systems which reported using the University of Chicago Battery, there was no strong pattern of needs for additional testing.

There were no differences in expression of test needs among the categories by size of systems.

INTERVIEW PROCESS

The interview as a screening tool was reported to be used in two ways in the transit systems' selection process. It was used early in the process as an initial screening device prior to testing by 44 percent of the systems. The interview was also used later in the process by 91 percent of the transit systems as a selection tool with the pool of applicants that had survived the testing.

The Uniform Guidelines include interviews as part of the selection process. The literature advises organizations to set standardized, formalized interview structures for all persons applying for the same position.

It is clear that the interview as a selection process was heavily used among the systems in this study. All of the small systems, 92 percent of the large systems, and 81 percent of the medium systems reported conducting interviews.

The initial screening interview is a finding of importance. Sixty-three percent of the medium systems used this procedure, 45 percent of the small and 31 percent of the large systems used this procedure. This finding becomes more notable because the procedure was used as an initial screening device and because of the point in the selection process at which it occurred.

The use of the interview is, therefore, a critical element in fair selection processes. No information was gathered on the way in which the interview was structured, on the validation of the interview process, or on the weight of the interview in the selection process.

TRAINING

Classroom Training

Ninety-four percent of the systems reported that they provide classroom training for their bus operators. The 6 percent that reported no training were small systems.

Over 78 percent of the systems gave more than sixteen hours of classroom training to bus operators, with 38 percent of the total sample using seventeen to forty hours. The large systems tended to give more hours of classroom training than did the others. Almost half (48%) of the large systems gave over forty hours, while only 26 percent of the medium and 20 percent of the small offered that much classroom training. (See Table III-11).

Of those ninety systems that reported the use of classroom training, 69 percent indicated that tests were administered to applicants during the training and 61 percent indicated that they

TABLE III-11

NUMBER OF HOURS OF CLASSROOM TRAINING
FOR BUS OPERATORS BY SIZE OF SYSTEMS

Percent of Systems Using Training Hours

<u>Hours of Training</u>	<u>Total %</u>	<u>Large %</u>	<u>Medium %</u>	<u>Small %</u>
0	6	0	0	19
1 - 8	9	3	11	17
9 - 16	13	10	7	19
17 - 40	38	39	56	22
41 - 80	11	13	4	16
More than 80	23	35	22	7

administered tests at the conclusion of the training period. Thirty-three percent indicated that they disqualified applicants if they failed classroom tests.

Some of the frequently mentioned topics covered during classroom training were:

- . Performance (driving, defensive driving)
- . Emergency and accident procedures (safety)
- . Passenger relations
- . Rules, regulations, policies, report procedures

Supervised Performance Training

Supervised performance training for bus operators was clearly important to the systems and practiced by all. All systems indicated they provided supervised performance training of over eight hours. Fifty-five percent reported that they provided more than eighty hours of supervised performance training while 27 percent reported that they provided forty-one to eighty hours of such training. Seventy-four percent of the large, 63 percent of the medium and 25 percent of the small systems provided training of more than eighty hours.

Sixty percent of the systems reported that performance tests were given during this training and 66 percent reported that tests were administered at the end of the training. Sixty-four percent of the systems reported that applicants were screened out of the hiring process if they failed one or more of the performance tests. Among the large systems, 74 percent reported that applicants were dropped for failing performance tests.

Training Needs

There was no reported evidence that the systems have any specific patterns of training needs. When asked about training needs, 53 percent of the systems reported that they had no need for additional training in either classroom or performance areas. This perception was evenly distributed among all size systems. Thirteen percent of the systems are not sure about a need for further training.

Thirty-four percent responded that they saw a need for more training, but no specific pattern of data evolved in the responses. Passenger relations was an area mentioned by nine systems in terms of training needs. Two systems listed handicap awareness, and four systems listed first aid (CPR and emergency care) as needs in training. Nineteen systems mentioned further need for training in areas categorized as "other".

PROBATIONARY PERIOD

Ninety-five systems reported that they did have a probationary period. The probation period varied from one month to more than six months, with 59 percent of the systems falling in the one to three month category. The length of time of probation did not appear to be a function of the size of the system. Evaluations were given during the probationary period, and 65 percent of the systems gave three or more evaluations during this time.

Bus operators were dropped during the hiring (including probation) process for a variety of reasons. These reasons have been categorized in Table III-12.

TABLE III-12

REASONS FOR DROPPING BUS OPERATORS DURING THE HIRING PROCESS

<u>Reasons for Dropping Operators</u>	<u>Size of System</u>			
	<u>Total</u> %	<u>Large</u> %	<u>Medium</u> %	<u>Small</u> %
Poor performance skills	46	51	52	36
Absenteeism and tardiness	46	39	48	55
On the basis of interview	14	13	30	4
Failure on tests prior to training	43	21	92	29

From Table III-12 it is clear that medium systems relied more heavily than the other systems on test failure before training for the dropping of applicants. Absenteeism and tardiness were used almost equally by large, medium, and small systems. Large systems relied fairly heavily on poor performance skills as a measure for dropping an applicant.

SUMMARY OF FINDINGS

Number of Hires

- . In 1980, 9,077 bus operators were hired by the systems in this study.
- . In 1980, 31 percent of these bus operators were hired on a part-time basis.

Locus of Control

- . Control of the selection process was under a formal personnel unit in 86 percent of the systems.

Recruitment

- . Not having enough minority and female applicants was the most frequent problem of recruitment reported by large systems.

Minimum Hiring Requirements

- . Thirty-four percent of the systems reported that they did not have minimum hiring requirements available in writing to prospective employees.

Applications

- . For every one bus operator hired, large systems took 8 bus operator applications, medium systems took 11 applications, and small systems took 12 applications.

Testing

- . Eighty-three percent of all systems reported that they tested applicants prior to "training".

University of Chicago Battery

- . Sixty-five percent of all systems in the study reported that they use the University of Chicago Battery. This represents 51 percent of the large systems, 78 percent of the medium systems and 77 percent of the small systems.
- . Eleven percent of the systems reported having used the Battery at one time but had discontinued its use.
- . The large systems that reported using the Battery employed 40 percent of the bus operators in all of the large systems in the study.

- . The small and medium systems that reported using the Battery employed approximately 80 percent of the bus operators in each respective category.
- . Seventy-five percent of the large systems that reported using the Battery had used it for over three years.
- . Systems that discontinued use of the Battery used it for an average length of 2.4 years.
- . Systems that used the Battery hired 44 percent of all bus operators hired by the systems in this study in 1980.
- . Of the systems that used the Battery, 78 percent stated that the advantage of the Battery is that it screens for desirable applicants.
- . Twenty-five percent of the systems that used the Battery stated the disadvantage of the Battery is that it does not screen for desirable applicants. Twenty-five percent saw no disadvantage to using the Battery.
- . There is no evidence that before and after records of absenteeism, turnover, accident rate, and promotions were kept to compare effects of the Battery.
- . The effects of the Battery, as negative or positive, appeared to be based on opinions, feelings, and perceptions. Little data exists in this study to support or deny these perceptions.
- . There were five legal challenges to the use of the Battery reported. There were no negative legal decisions on the Battery reported.
- . Sixty-seven percent of the systems reported no need for new selection tests for bus operators.

Interview

- . Over 90 percent of the systems reported the use of the interview procedure as a screening device for selecting bus operators.
- . Forty-four percent of the systems reported the use of a pre-screening interview before using tests of any kind.

Training

- . Over 78 percent of the systems offered more than sixteen hours of classroom training to operators.
- . Sixty-nine percent administered classroom tests during training. Thirty-three percent disqualified applicants on the basis of failing these tests.
- . Fifty-five percent of the systems provided over eighty hours of performance training and 27 percent provided between forty-one and eighty hours of performance training. Seventy-four percent disqualified applicants on the basis of failing performance tests.
- . Forty-two percent dropped applicants for failing tests prior to training.
- . Sixty percent had a probationary period of thirty to ninety days.

IV. CONCLUSIONS AND RECOMMENDATIONS

This section will outline the implications of the study findings and make recommendations for the transit industry to improve its practices in the selection of bus operators. As is customary, the section will identify the problems that were uncovered and make appropriate recommendations. This section will also identify those personnel selection practices that appear to be effective in the transit systems in this study.

The recommendations are directly addressed to the management of the transit systems who control the selection of bus operators. Particular recommendations are made to APTA and to the Urban Mass Transit Administration (UMTA), the grantor for the Development and Implementation of the University of Chicago Battery for Bus Operators.

EFFECTIVE PERSONNEL SELECTION PRACTICES IN THE TRANSIT SYSTEMS

Four positive characteristics of the selection procedures in the transit system were identifiable and deserve attention and recognition:

- . A substantial number of the transit systems use a variety of methods for recruitment. They particularly are alert to the use of minority and women's organizations to attract these candidates.
- . The extent of use of validated testing in the transit systems as a selection procedure indicates their awareness of the need for objectivity, fairness, and the accurate selection of desirable candidates who can perform the job effectively.
- . One of the strongest components of the selection process was the systems' awareness of training. The time dedicated to classroom and performance training is admirable and an indicator of their respect for the importance of safety, accuracy and competence in the bus operator positions.

PROBLEMS AND RECOMMENDATIONS

Personnel and Management Characteristics of Systems Surveyed

Problem:

- . There are 13 systems which have no formal personnel unit. Of these thirteen, four were medium sized and nine were small sized systems. It is of concern whether a medium sized system can function efficiently without a formal personnel unit. Even among the small systems, twenty two of the thirty one reporting systems indicate that they do have a formal personnel unit.

Recommendations:

- . All medium systems need to develop a formal personnel unit for controlling the selection process.
- . Those small systems without a formal unit need to review whether the focus of personnel hiring responsibility is clearly defined in the appropriate manner and whether the personnel tasks are being competently administered. Formalized units simply give some assurance that a responsible party has been appointed to carry out the fair and legal requirements of the hiring processes.

Recruitment

Problems:

- . The major problems listed regarding recruitment focus on a small number of qualified applicants and an insufficient number of minority and female applicants.
- . In addition, the fairly strong dependence of medium and large systems on the word-of-mouth recommendations of current bus employees can be a dysfunctional trend. When information on recruiting is passed on in such a manner, a buddy system develops, a network of "like-types" are referred, and they consequently apply. Selection of applicants is thereby limited. Prospective applicants who are of a different social setting, race, sex or culture will be overlooked or possibly ignored. The pool of applicants becomes less diverse and the systems become vulnerable in terms of unfair or restricted hiring procedures. In these instances it could also become difficult to fulfill the equal employment requirements for minority and female hiring.

Recommendations:

- . Medium and small systems need to focus on expanding their sources of candidates especially in hiring female and minority applicants. They need to increase their use of educational institutions, vocational training centers, and minority and women's organizations and/or community centers as sources for recruitments.
- . Eliminate dependence on the "word of mouth" method as a major source of recruitment.

Ratio of Applicants to Bus Operators Hired

Problems

- . The high volume of applications takes direct labor, support services, materials, and time all of which cost money. Since 90 percent of the applications are screened by the systems, this indicates a heavy work load which is more than likely unnecessary for the number of bus operator positions that are filled.
- . Systems are also required by the Uniform Guidelines to keep accurate and complete records of applicants. This record-keeping requires time, labor, clerical support, accurate filing systems, and efficient retrieval. The greater the volume of applications, the greater the amount of work in record-keeping.
- . If the applications are not processed accurately and completely according to objective, clearly stated criteria, there is a high probability that the application process will be unfair to many candidates. Consequently, the process may cause adverse impact on minorities and females.

Recommendations:

The systems need to become more efficient in the application process by taking the following action:

- . Reduce the number of applications taken.
- . The small and medium systems need to reduce the ratio of number of applications taken to bus operators hired at least 8:1.

- . The individual large systems must examine their ratio of applications to bus operators hired. An 8:1 ratio should be the maximum. It would be advantageous for them to further examine whether they can cut down the application volume even more by publishing their minimum hiring requirements and thus candidates will screen themselves before completing an application.
- . Do not take applications on a walk-in basis.
- . Schedule the application dates for more efficient processing and for decreasing the volume.
- . Review management policies for the application process and recommend changes for efficient, cost effective, and fair processing.
- . Systems that report they receive too many applications may do well to limit the times during the year when they accept applications. They might also advertise and accept applications only when they anticipate job openings will occur.

Written Hiring Requirements

Problems:

- . Thirty-seven percent of the reporting systems state that their minimum hiring requirements are not available in writing to prospective employees.
- . This places the potential applicants at a disadvantage. They do not know whether they really have the qualifications or whether the reasons they were rejected are legitimate and fair.
- . The systems which do not have hiring requirements in writing could be legally vulnerable. There is no justification for the hiring process without clear objective criteria in writing for all applicants.
- . There is no self-selection among candidates and thus the volume of applications increases.

Recommendation:

- . All systems, regardless of size, should have their minimum hiring requirements available in writing for all applicants.

Interview

Problem:

- . The pervasive use of interviews by the systems raises a serious concern about the fairness and objectivity of the interview process. As a survey, this study made no attempt to do an in-depth analysis of any of the selection procedures. Therefore we do not know the extent of awareness that the systems have concerning the validation of the interview process. As pointed out in the literature review, (p. B-5) subsequent to the adoption of the 1978 Uniform Guidelines, the interview, as a selection tool, must be carefully structured. Several questions are raised for consideration by the systems.
 - . Are the interviews standardized so that all interviewers ask the same questions of all potential candidates?
 - . Do all of the questions that are asked in the interview relate directly to job performance?
 - . Do the job-related questions gather data that specifically measures the candidates' ability to do the job?
 - . Are the interviewers trained and monitored to interview systematically, fairly, and objectively?
 - . How are interviewer's responses scored?
 - . Is there a single measurement system for scoring all interviews of all bus operator applicants?
 - . How are interviews weighted against tests?
- . Forty-four percent of the total bus systems conduct "initial screening interviews". Twenty-three systems stated specifically that their interviews come before testing. There is a danger here that this practice permits screening out of "undesirable" applicants on a very subjective basis.
- . These systems may be eliminating people unfairly rather than through objective means and in so doing they become vulnerable to illegal violations of the Civil Rights Act.

- . The pre-screening interviews are attempting to do what the Battery was validated to do and what the majority of the Battery users claim it does. This practice then, at the very least, is duplicative. It may also be pre-selecting a population for the Battery. This preselection will certainly have the potential for skewing the results of the Battery.
- . A substantial percentage (34%) of the systems are using the interviews to screen out applicants before they take the University of Chicago Battery. The issue is whether the prescreening is negatively impacting the pool of candidates who take the Battery. It is no doubt impacting the candidates who fail to make the testing stage.

Recommendations:

- . Validate the interview process.
- . Standardize the interview questions.
- . Develop all questions so that they gather data directly related to the applicant's ability to do the job.
- . Develop a measuring system for scoring applicants responses.
- . Develop a system for weighting interviews with other selection procedures, particularly with tests.
- . Train all interviewers in the use of a standardized, formalized system.
- . UMTA needs to evaluate the impact of using interviews to screen applicants prior to the use of the Battery.

Testing Procedures

Problems:

- . Although a large percentage of the systems test bus operator applicants prior to the training period, 17 percent do not administer such tests but place their applicants directly into training. The use of tests as screening devices is an important issue here. If systems choose not to utilize tests prior to training, they are faced with the prospect of accepting almost all applicants and/or screening the applicants out through less than objective means.

- Testing can be an important means of assuring fair selection practices. Testing can screen out applicants who will not perform well on the job. It can be an objective, non-discriminatory, valid selector of candidates from a pool of competent job applicants.
- Thirty-three systems do not include the University of Chicago Battery in their testing procedures, although they were originally trained by the University of Chicago in administration of the Battery. Twelve report that they use one or more tests in addition to the University of Chicago Battery. This is 46 percent of 97 systems that are relying on other tests or selection procedures, rather than on the Battery as their primary screening device for hiring bus operators.
- Systems need to be certain they are using tests which are valid and would answer their personnel needs. Some systems listed some common suggestions for help in the area of testing. These suggestions center around the areas of skill tests (math, map reading, English, common knowledge, eye-hand coordination, reflex tests), job-related tests (map reading, safety consciousness, road tests), personality tests (public relations skills, attitudes tests, emotional stability tests, and finally, a test validated for Hispanic females). The individual systems are aware of the need for valid testing. One-third of the systems do not believe that the University of Chicago Battery answers all of their testing needs.
- Where systems list advantages of the University of Chicago Battery, they focus on its screening ability and the fact that they view it as "safe" in terms of providing legal protections. Other than this, the results of this study do not indicate that the systems know what to expect from testing concerning the performance of the applicants.
- The advantages stated for using the University of Chicago Battery fall heavily in the area of screening. Sixty-two percent of the University of Chicago Battery users state that the Battery is advantageous in terms of the screening it provides. It is interesting to note here that when the University of Chicago Battery is evaluated in terms of its disadvantages by the users of the Battery, 25 percent of the respondents list the observation that the Battery does

not screen for the desirable applicant. The problem evident here is that these systems, although using the test, do not see it as accomplishing the purposes for which it is being used. The six of the seven large systems which discontinued its use report it discriminates against applicants. These results raise serious questions about the real effects of the Battery and suggest a need to gather more detailed information on the influence of the Battery on those factors that are key to a bus operator's success.

- Five of the large systems that discontinued the use of the Battery had used the Battery for two or more years and have amassed a considerable amount of data on the results of testing. Although the number of systems which have discontinued the use of the Battery is small, the total number of bus operator positions represented by these systems is substantially large. The amount of data these systems have been able to accumulate due to their large number of applicants needs to be examined. It is important to know if their high volume of applicants gives them some information about the use of the Battery that it may take other systems, especially medium and small systems years, to accumulate.
- Perhaps the most glaring problem concerning the use of the University of Chicago Battery is the fact that the systems that do use the Battery, in general, have not attempted to evaluate it in any systematic way. Since most of the systems stated they have not kept accurate records on absenteeism, turnover rate, accident rate and promotion potential, it is difficult for these systems to properly assess the real value of the Battery. It is also difficult to assign a casual relationship to the use of the Battery and the increase or decrease of the four factors that initially spurred the development of the Battery.

Recommendations:

- Systems that use the Battery need to define in performance terms what a successful operator in a system is expected to do, and to determine criteria for measuring these factors.
- All systems need to monitor the record-keeping system to track absenteeism, turnover, accident rate, promotion rate, and training success of all employees in order to determine the effectiveness of their overall selection procedures, and in particular, testing.

- . The large systems that discontinued the use of the Battery after having used it for at least two years should be studied in order to identify why the tests was discontinued.
- . UMTA needs to consider funding a comparative study in selected systems which will determine the progress of a sample of candidates who have and have not been screened through the use of the Battery. These candidates could be followed for twelve or eighteen months tracking the factors of: attendance, tenure, training success, customer satisfaction or complaints, and performance evaluations by supervisors. It is further recommended that a correlation study be done of systems participating in both this survey and the study on absenteeism conducted in 1980 (See Appendix J).
- . UMTA needs to consider a comparative study of 44 large publicly-owned systems that do not use the Battery with those who do not use the Battery. These systems should be studied in terms of absenteeism, turnover rate, accident rate, promotion rate, and customer satisfaction in order to determine how the use of the Battery is affecting these factors.
- . APTA or UMTA should consider being a clearing-house for information and suggestions on testing. There should, in the future, be options available on testing. The systems, as they grow and change, should have validated tests readily available to them to use in personnel selection. As the personnel needs become more demanding, the individual systems will need more and more help in the areas of hiring, screening, and testing. The systems that share the validated tests with each other will be saving time and money in development and validation.

Classroom Training

Problems:

- . A substantially large number of systems reported that they use classroom and performance tests during training to disqualify applicants. Since failure of the training test(s) has caused disqualification of an applicant, it is critical that systems ensure that their training tests are job related and do not have adverse impact.

- . Theoretically, if the screening process prior to training is successful in selecting capable applicants, few applicants should be dropped during the training process. However, to the extent that the selection procedures do not effectively screen applicants prior to training, the systems will depend on training tests to complete the process of screening out applicants.
- . If the training test is used to any significant degree for final screening, it is a costly tool. The investment of time, personnel, material, and administrative support by the system in a bus operator trainee is substantial. To drop an applicant at that point in the process is not a cost effective measure.
- . It is noted that 70 percent of the systems that provide classroom training reported that their training program ranged from seventeen to more than eighty hours in length. Twenty two percent however, reported that their classroom training is less than seventeen hours long. Is this sufficient for these systems when 80 percent require so much more time in formal classroom training?
- . It is noted that several systems reported that tests are not given during or at the conclusion of the classroom training program. At the same time that systems are advised to evaluate their classroom testing to ensure job relatedness and absence of adverse impact, it is important that systems determine effective means to evaluate progress of applicants during training. Systems should be encouraged to use tests, but only validated ones.
- . Among the reporting systems, there was a relatively high similarity on the most important topics covered during the classroom training. This would enable the systems to share many common training curricula.
- . As with the classroom testing discussion, the observation is made that 20 percent of the systems reported that they do not give performance tests to bus operator trainees.
- . There are some concerns about the widespread use of tests in training that serve as a screening device. If the tests that are listed are job content-oriented as their titles suggest, the issue of content-validity needs to be raised. Have the systems reviewed and proven the tests as valid measures of job skills? Because the tests are used as selection measures, it is essential that the systems be assured that all paper and pencil tests and performance tests, simulation or actual, be valid measures of the job skills required for the bus operator position at the entry level.

Recommendations:

- . It is recommended that this group of eighteen systems reassess their classroom training program so as to determine if their applicants might benefit from a longer training. A longer training period has apparently benefited the majority of reporting systems. The systems may want to gather information about training programs which are of a longer duration.
- . In those systems which reported no testing, it is recommended that they develop an effective and objective method of assessing the progress of applicants.
- . APTA should serve as a clearinghouse for the development and publication of common training programs that can be used by many systems. Such programs could easily allow for a necessary adaption to local system needs, especially in the area of the rules, regulations, policies, and report procedures.
- . In those systems where tests are not used, it is important that the training personnel examine their methods for evaluating progress of applicants/trainees during the performance training period to ensure that they are effective.

Probation

Problems:

- . Substantial variation exists in the length of probationary periods. Theoretically, the length of a probationary period depends largely on the determination by a system of the time it will take to adequately assess the performance of an operator/trainee. This assessment period based on the permanent hiring criteria of that system should then enable the employer to make a good decision at the point of permanent hire.
- . Systems should analyze their performance evaluations procedures during the probationary period.
- . Systems should assure that these evaluative procedures are objective and performance criteria are measurable.
- . Systems should train their supervisors in effective methods of performance evaluation.

Recommendations:

- The probationary period length of 2 - 3 months was reported to be the most common among the systems.
- It is recommended as good personnel practice that employers periodically reassess their probationary policy to determine if it does what the employer wants it to do. For those systems that have shorter periods (one to two months), it may be valuable to determine if an adequate assessment of performance can be conducted within that shorter time frame. For those systems that have longer periods (four months and more), it might be equally valuable to reassess the longer time frame to determine if it is actually necessary in order to evaluate the operator based on permanent hiring criteria.

APPENDIX A

BACKGROUND INFORMATION

In 1969, the Urban Mass Transportation Administration encouraged the leadership of the Institute of Rapid Transit (IRT) and the American Transit Association (ATA) to give serious attention to the resolution of a number of pressing manpower problems facing the industry. The two organizations established a joint committee entitled Joint IRT/ATA Committee on Manpower-Recruitment, Training, and Development.

Among the projects considered by the Committee was the problem of recruitment and selection of qualified personnel to operate transit equipment while ensuring that procedures for hiring would comply with the Civil Rights Act of 1964 and its amendments. Individual efforts by certain large bus companies "to work out equitable testing procedures for use in the process of selecting operators" had been unsuccessful according to Baehr (1976, p. 2).

Subsequently, the Massachusetts Bay Transportation Authority proposed a project to UMTA which would "undertake to validate tests capable of identifying applicants with the potential to be trained as capable bus operators." "It was hoped and anticipated that such a project would result in the development of greater employment opportunities for members of minority groups, since a valid Battery, if one could be developed, would not discriminate against minorities". (Baehr, 1976, p. 3).

As stated by Dr. Baehr, "The general objective set for the project was to provide the urban transportation industry with a selection tool (a validated test Battery) which, when properly used, would help in hiring operators who would:

- adapt well to training,
- become reliable employees
- operate with low accident rates,
- tend to generate a favorable public image,
- find the work personally satisfying (with a reduction in personnel turnover), and
- have potential for promotion" (1976, p. 3).

"In short, the Battery was seen as a major aid in the selection of employees who would provide safe, courteous, and dependable service to patrons of transit systems. A more specific objective was to assure that the Battery would be validated in as professionally sound and legally acceptable a way as possible within the bounds of present-day technology" (Baehr, 1976, p. 3).

UMTA approved, funded, and awarded the prime contract to the Massachusetts Bay Transportation Authority. The MBTA subcontracted the implementation of the study to the Industrial Relations Center of the University of Chicago. Project work began in August, 1970.

Five transit systems participated in the study. They were the Chicago Transit Authority, Chicago Illinois; the Massachusetts Bay Transportation Authority, Boston, Massachusetts; the Cleveland Transit System, Cleveland, Ohio; the Atlanta Transit System, Atlanta, Georgia (now the Metropolitan Atlanta Rapid Transit Authority); and the Alameda-Contra Costa Transit District, Oakland, California.

The work for the project, entitled "National Validation of a Selection Test Battery for Male Transit Bus Operators" was completed between September 1, 1970, and June 30, 1976. The major objective of the research project was "to establish valid procedures for the selection of applicants who would have most potential for successful performance as bus operators in an urban transportation authority" (Baehr, 1976, p. II-1).

The validation study was implemented for male white, black, and Spanish surnamed applicants in the five participating authorities, utilizing the criterion-related validation design. The project was successful, noted the MBTA "in devising and validating in full compliance with the EEOC Guidelines (1970) a test Battery for use in selecting white, black and Spanish-surnamed male applicants for work as Bus Operators" (Murphy, 1976).

In August, 1974, the Industrial Relations Center (now the Human Resources Center) of the University of Chicago initiated a series of workshops for transit authorities who wanted to use the validated test Battery for males. The workshops were designed to train personnel from transit systems in the administration of the test Battery.

The results of the University of Chicago project were published in the final report entitled, National Validation of a Selection Test Battery for Male Transit Bus Operators, published in June, 1976. The first project was then extended and work was completed between November 1, 1977, and March 31, 1979, by the University of Chicago under the prime contractor, MBTA, to validate the test Battery for female bus operators utilizing the concurrent performance criterion validation design. The documentation of need for the extension of the validation study focused on three elements:

1. Civil rights (to ensure)
2. Safety of the public
3. Cost-effectiveness (Murphy, 1976).

Murphy of MBTA (1976) stated, "Other than the male bus operator test Battery, there exists no means or devices for assuring equality of employment opportunities to women or minorities who aspire to work in transit occupation." He continued, "One of the objectives of Project MA-06-0011 is to develop and make available devices to achieve this result".

In addition, Murphy noted, "If this project is brought to a successful conclusion, one of its values will be an improved ability by transit systems to select applicants who will, after training, drive safely and dependably. In turn, this should result in a reduction in the amount of accidents, and in turn, of claims". And finally, noted Murphy, "This project is cost-effective. When successfully completed and broadly applied, it can result in substantial annual savings throughout the transit industry . . ."

Nine systems participated in the extended study. They were Boston (MBTA), Chicago (CTA), Cleveland (CTS), Atlanta (MARTA), Pittsburg (PAT), Washington (WMATA), Minneapolis-St. Paul (MTC), Fort Worth (CITRAN), and Columbus (COTA). Results were published in the final report entitled A Validation and Analysis of Selection Procedures for Male and Female Bus Operators (Baehr, 1980).

Soon thereafter, the University of Chicago Human Resources Center began conducting training workshops for transit systems on the administration of the combined male and female test batteries. "This is especially necessary if their training took place some years ago or if there has been a turnover in company personnel resulting in test administration being in the hands of people who have not been trained by the University of Chicago," it was noted (Baehr, 1980, 111).

In May of 1980, UMTA entered into an agreement with the Jordan-DeLaurenti & Associates, Inc. to provide a study entitled "Review and Evaluation of the Role of Bus Operator Applicant Testing Procedures in the Personnel Selection Process Within the Transit Industry". Work commenced on the study on June 3, 1980, and was completed in September, 1981.

APPENDIX B

LITERATURE REVIEW

The review of the literature was limited to a survey of the published literature pertaining to the recruitment, screening, and selection of bus operators. Three general categories of published literature were researched: (1) personnel selection practices as related to over-the-road, line-haul, inter-city or other transportation modes involving motor vehicle operators; (2) pertinent EEO laws, regulations, and other requirements; and (3) use of bus operator applicant testing procedures. Local in-house publications were not reviewed. The time frame used in this literature survey was 1975 to December, 1980.

A scarcity of literature was found to exist on the hiring and personnel selection practices relating to motor vehicle operators. The only material which was found in the general literature pertaining specifically to the use of bus operator testing procedures was found in the final reports published by the Urban Mass Transportation Administration entitled, National Validation of a Selection Test Battery for Male Transit Bus Operators (Baehr, 1976) and A Validation and Analysis of Selection Procedures for Male and Female Bus Operators (Baehr, 1980). Personnel literature which pertained to the employee selection process emphasized the implications of Equal Employment Opportunity regulations and case law for selection of employees in both the private and public sectors. Although these articles did not specifically address the selection procedures for bus operators, they directly relate to the selection of operators throughout the transit industry.

Equal Employment Opportunity - History of Current Guidelines

The passage of the Civil Rights Act of 1964, began an era of federal government guidelines on selection procedures for personnel.

It has been an era of federal government guidelines on selection procedures; further congressional civil rights legislation; many court decisions; including three by the U.S. Supreme Court affecting selection procedures; and much debate within the psychological profession regarding tests and other methods used in making selection decisions (Grant, 1980, p. 370).

As reflected in a series of federal guidelines, the history of equal employment opportunity requirements for employers has been often confusing. In 1965, the Equal Employment Opportunity Commission (EEOC) was established by Title VII of the 1964 Civil Rights Act to administer laws and regulations. During the years between 1966 and 1978, the EEOC and other government agencies issued federal guidelines to advise employers on the steps that needed to be taken to ensure compliance of their employee selection procedures with Title VII. In 1966, the EEOC published the first set of federal guidelines on employee selection. In 1968, a second set was issued by the Office of Federal Contract Compliance (OFCC). In 1970, the EEOC published a new set of guidelines entitled "EEOC Guidelines on Employee Selection Procedures", which became the basis for many of the legal cases in the 1970's (Arvey, 1979, p. 64). Shortly thereafter, the OFCC issued similar guidelines.

The 1972 amendments to the Civil Rights Act of 1964 gave the EEOC new enforcement powers and created the Equal Employment Opportunity Coordinating Council (EEOCC). In 1973, the council published a draft of a set of uniform guidelines regarding testing and selection procedures. Between 1973 and 1978, several drafts of uniform guidelines for testing and selection procedures were published. Conflicting sets of guidelines by different government agencies existed during this period of time.

In 1976, for example, the Federal Executive Agency (FEA) published its Guideline on Employee Selection Procedures. These guidelines were adopted and published separately by the Department of Justice, the Department of Labor, and the Civil Service Commission. The EEOC, however, did not support the FEA guidelines. Instead, it reissued the original 1970 guidelines.

Finally, on December 30, 1977, the Federal Register published the proposed new "Uniform Guidelines on Employee Selection Procedures". These proposed guidelines incorporated the recommendations of the EEOC, the Civil Service Commission, and the Departments of Justice and Labor.

On September 25, 1978, the new Uniform Guidelines on Employee Selection Procedures (1978) were adopted as final rules by four agencies: The Equal Employment Opportunity Commission, the Civil Service Commission (now the Office of Personnel Management), the Department of Labor, and the Department of Justice.

As stated in the new document, "the guidelines incorporate a single set of principles which are designed to assist employers, labor organizations, employment agencies, and licensing and certification boards to comply with requirements of federal law prohibiting employment practices which discriminate on grounds of race, color, religion, sex, and national origin." (p. 38296).

Significant Provisions in Uniform Guidelines on Employee Selection Procedures (1978) .

Since 1977 when the revised guidelines were first proposed, much of the personnel literature on employee selection procedures has focused on the analysis and application of the new guidelines to the employee selection process in business, industry, and government.

This literature generally highlights the impact of the significant provisions of the guidelines on personnel selection processes. The provisions most often discussed are:

- . Conditions under which validation of selection procedures is necessary
- . The "bottom line" provision for adverse impact on the selection of members of a race, sex, or ethnic group and the "four-fifths rule"
- . Record-keeping requirements to document impact
- . Use of alternate selection procedures to eliminate impact
- . Acceptable types of validity studies

According to the guidelines, if personnel records show that "the total selection process for a job has an adverse impact, the individual components of the selection process should be evaluated for adverse impact" (p. 38297). Adverse impact is generally defined by the guidelines as a selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate of selection. The guidelines go on to say that if the total selection process does not have an adverse impact, the individual components will not be evaluated under normal circumstances. This is referred to in the guidelines as the "bottom line" in the evaluation of selection rates. It describes the conditions under which validation of selection procedures is generally necessary.

The guidelines require employers to maintain records and other information which will "disclose the impact which its tests and other selection procedures have upon employment opportunities by identifiable race, sex, or ethnic group... in order to determine compliance with these guidelines" (p. 38297).

The guidelines also state that if the user does not maintain data on adverse impact, the Federal enforcement agencies "may draw an inference of adverse impact of the selection process if the user has an underutilization of a group in the job category, as compared to the group's representation in the relevant labor market or, in the case of jobs filled from within the applicable work force" (p. 38298).

Holmes clarifies this requirement:

Once adverse impact exists, an employers has the duty to validate the individual procedures which cause it. Every selection practice or criteria concerning the applicant or employee from the time he or she expresses an interest in a job until he or she is selected or rejected must be validated if it has an adverse impact in order to ensure that the entire selection process is job-related and free of discrimination (Holmes, 1970, p. 35).

If the validation of a selection procedure becomes necessary, users may rely upon criterion-related, content validity, or construct validity studies in accordance with the technical standards set forth in the guidelines (p. 38298).

Another important issue of the guidelines which is discussed in the literature is the significance of the expanded definition of "test" in the employee selection process. During the years before the 1978 guidelines became effective, employers, courts, and government focused attention on institutionalized and written tests. Due to the complexity of the EEO regulations and the cost and technical skills necessary to validate testing procedures, Holmes notes that many companies had eliminated testing from their employee selection procedures (Holmes, 1970, p. 35). Now, he summarizes, the new guidelines specify that all parts of the selection process must be validated if adverse impact exists (p. 35).

Applications and Job Qualifications

Discussion in the literature also includes specific attention to items on employment applications forms. The review of experience or education from employment application forms is included as a selection procedure in the guidelines.

Miller reported a study conducted in 1978-1979 of a randomized sample of 50 percent of the organizations listed in the Fortune 500. Of the organizations in the sample, 98.7 percent had included one or more potentially "inappropriate" items on their application forms. Miller reported that an average of 9.74 items per application fell into the broad category of "inappropriate". "Inappropriate questions" were defined as those which did not appear job-related, were not necessary for making an employment decision, or were clearly questionable under Title VII of the Civil Rights Act and/or other laws (Miller, 1980, pp. 65-67).

Miller suggests that an item should be struck from an application form if the employer determines that there is a remote possibility that the question could constitute "adverse impact," is not job-related, is without evidence to establish its validity, could probably constitute invasion of privacy, or cannot be justified as a bona fide occupational qualification or business necessity (p. 81).

The restrictions on pre-employment inquiries is discussed by Dipboye et. al. who caution employers that "any question which has an adverse impact on a group protected under Title VII is prohibited unless such inquiry has been demonstrated to provide information relevant to whether a person can perform a job successfully" (Dipboye, 1976, p. 522).

Specific job qualifications such as educational requirements, physical characteristics, and arrest records have been scrutinized and sometimes implicated in court rulings. Under the U.S. Supreme Court's decision in Griggs v. Duke Power, job qualifications which result in screening out minorities or women at a greater rate than others must be validated and must be proven by the employer that the qualification is closely related to job performance in the particular job to which the qualification applies.

The use of standard weighted application procedures in the selection process is discussed by Pace et. al. (1977). The authors suggest that some applications may weigh items which may not be relevant to the job and which may be discriminatory and not in compliance with Title VII. They recommend to employers that job relevance be incorporated into the weighting procedure through the use of job analysis.

Interviewing

The literature also discusses implications of the guidelines for the use of interviewing as a selection device. Dhanens (1979) advises employers to determine a fair, standardized system for giving the applicant a score in each critical area covered by the interview. He cautions employers to concentrate on job requirements in interviewing and on record-keeping. Gatewood and Ledvinka (1977) reinforce the necessity that interviews be job-related. They note that "unless interviewing is supported by validation data, such as correlations between interview performance of applicant and their subsequent job performance as employees, it is just as vulnerable to EEO attacks as testing" (p. 52). They recommend to employers that they develop a standardized interview, specified in writing, based on specific job-related questions and objective rating systems (p. 53).

According to Byham (1978), the selection interview is a "key element in most selection systems and yet represents an area of little systematic research or study" (p. 42). Based on his observation of more than 1,000 selection interviews and an extensive review of the literature, Byham summarized several common problems in interviewing, many of which can jeopardize the legal acceptability and accuracy of the process. Managers, he contends, may not seek enough information on all important dimensions needed for success for job performance. Also, they may misinterpret data; allow judgements to be affected by biases and stereotypes; or fail to organize the data and selection elements into a system. In addition, they point out, managers may rely too heavily on interviews in making selections (p. 44).

He suggests that organizations develop a consistent interviewing system which is clearly job-related. He also recommends that managers organize their selection procedures into a system which is consistent; which includes more than one interviewer; and which are based on improved questioning techniques to obtain better examples of behavior (p. 45).

The selection procedure of interviewing is also discussed by Dipboye (1976) who expresses concern about the personnel selection interview. Not only have few employers attempted to assess the effectiveness of interviews as predictors of success, he states, there is ample evidence that they can have discriminatory impact. "Interview decisions can have adverse impact on minority hiring and constitute doubtful predictors of success," writes Dipboye (1976, p. 52). The author concludes by stating:

The personnel interview is not a substitute for well designed and valid objective tests as predictors of job success. Furthermore, if left unstructured, the interview can have an adverse impact on the hiring of protected groups. The interview is most likely to play a valuable role as an instrument of legal selection when there are attempts to standardize and validate it and when it is used in conjunction with other more objective indexes (p. 522).

Greenlaw and Kohl (1980) also focus on selection interviewing. The authors agree with Dipboye, Arvey, and Tepstra as well as with Ledvinka and Schoenfeldt that serious compliance problems--in light of the difficulty of interview validation--can be created if employers rely on the interview (p. 79). They conclude that interviewing validation will be an important compliance "battle arena" in the next few years. This being the case, they recommend that the issues of validity and reliability of the interview in the selection process be resolved in the future. They further recommend that employers use patterned, structured, and standardized interviews and that interviewers be trained to use effective techniques and avoid or minimize common interview problems (p. 77).

Testing

In much of the literature on testing for employee selection, the authors have engaged in discussions of the issues of the use of tests as valid screening measures. This study excludes the task of evaluating the existing tests as valid. The University of Chicago male and female batteries have been validated for use with all populations except Hispanic females. Thus, there will be no review of literature related to the appropriateness of the validation methods relevant to this selection procedure (Baehr, 1976; Baehr, 1980).

The issue that is relevant to this study is the use of other tests that may or may not be validated as acceptable selection tools according to the guidelines. Discussions of content validity, criterion validity, and construct validity are the concerns of much of the literature on testing (Norris and Buford, 1980; Guion, 1978; Gatewood and Schoenfeldt, 1977). The clear message of these discussions is that all tests used for selection processes must be true measures of job performance skills. As such, they must follow the Uniform Guidelines (1978) which specify that any selection procedure that adversely impacts any group of minorities or females must be validated as essential for the selection of people to do the job.

Performance Appraisals

In 1978 guidelines also apply to performance evaluations during the selection process. As defined by the guidelines, employment selection procedures include the appraisal of performance during training programs or probationary periods (p. 11997). As pointed out by Lubben, Klasson, and Thompson, the majority of Title VII court cases are not direct challenges to the performance appraisal programs (p. 16) but rather issues related directly to performance appraisal practices: practices of transfer, promotion, compensation, layoffs, and training programs. They note that to date there has not yet been a case pertaining to the validation of the performance appraisal system. In Brito v. Zia Co., the court accepted the practice of performance evaluation as a test and therefore required Zia to comply with the EEOC guidelines on employee selection procedures.

Managers are advised for formalize and standardize their organization's performance evaluation system and to ensure that the performance appraisal system is job-related (Lazer, p. 72; Lubben, p. 20). Standards of performance should be specified for the positions being rated, recommends Lubben (p. 20).

Although it is recognized in the literature that these recommendations are not new, it is also recognized that managers must be sure to re-evaluate their performance appraisal system to make sure that it is effective and that it is in compliance with the EEOC guidelines.

Record-keeping Requirements

The recent literature also discusses the provision in the 1978 guidelines which requires extensive administrative record-keeping. The new obligations require the employer to keep records of the number of applicants and hires by sex, race, and ethnicity. This includes separate figures for blacks, Hispanics, Indians, and whites.

The guidelines state:

Each user should maintain and have available for inspection records or other information which will disclose the impact which its tests and other selection procedures have upon employment opportunities by identifiable race, sex, or ethnic group...in order to determine compliance with these guidelines (p. 38297).

These requirements, as reviewed by Simon (1979), can significantly increase paperwork, time, and cost associated with the personnel administration of employee selection. Simon recommends that employers set up procedures to identify the success rate for each candidate in terms of each selection process component in order to determine if any component produces an adverse impact (p. 78).

Consequently, Simon suggests that applications should only be accepted when there are job openings. "This procedure," states Simon, "minimizes the number of casual, completely unqualified persons who 'drop by' the plant to fill out applications forms. Under the guidelines, any person who expresses only an informal interest in a job must be included in the 'applicant pool'."

Holmes (1980) also recommends that applications be taken only when job openings exist for a specific position. "Failure to do so," states Holmes, "results in a plethora of paperwork to annually analyze for adverse impact, in the creation of an application pool for which a few or no job openings may exist and possibly in the needless creation of adverse impact requiring costly validation (p. 36).

In summary, the general literature in personnel pertaining to the selection practices of employees in business, industry, or government focuses principally on the implications of the Uniform Guidelines on Employee Selection Procedures (1978). Much of the literature published since 1977 examines the full range of selection procedures and suggests that careful attention be devoted by managers and personnel specialists to procedures such as interviews and other practices which did not receive as much attention earlier in the 1970's. There is much less attention in the literature to issues of organizational effectiveness and efficiency, including cost issues, in the selection process for organizations.

APPENDIX C

GLOSSARY OF TERMS

The following operating definitions emerged from the review of the literature and became the basis for the conceptual framework of the survey.

* Adverse Impact: A substantially different rate of selection in hiring, promotion, or other employment decision which works to the advantage of members of a race, sex, or ethnic group.

* Applicant: A person who has indicated an interest in being considered for hiring, promotion, or other employment opportunities. The interest might be expressed by completing an application form, or might be expressed orally, depending upon the employer's practice.

* Recruitment: Those practices and procedures whereby a transit system makes known that it is seeking applicants for bus operator positions. As defined in the Uniform Guidelines (1978), recruitment procedures and practices do not come under the heading of "selection procedures".

* Selection Procedures: Any measure, combination of measures, or procedure used as a basis for any employment decision. Selection procedures include the full range of assessment techniques from traditional paper and pencil test, performance tests, training programs, or probationary periods and physical, educational, and work experience requirements through informal or casual interviews and unscored application forms.

Total Selection Process: Combined effect of all selection procedures to the final employment decision such as hiring or promoting.

Training: Includes formal classroom training; and both formal and informal on-the-job training that occurs during the probationary period, before a bus operator is put on the permanent payroll. It does not include any training of bus operators who are already on the permanent payroll.

Validated Test Battery: Battery of tests which was developed and validated by the Industrial Relations Center (now the Human Resource Center) of the University of Chicago under a grant from the Department Of Transportation to the Massachusetts Bay Transit Administration (Contract No. DOT-UT-289). In this study, it is referred to as the University of Chicago Battery or simply the Battery.

Transit System: An organization that owns and/or manages a transit operation of a fixed route, regularly scheduled service, available to the general public offering bus rides within designated boundaries. In this report the word, systems, is often used to designate a group of transit systems. The word, system, is often used to designate the individual transit system.

*As defined in The Uniform Guidelines on Employee Selection Procedures (1978).

APPENDIX D

LIST OF TRANSIT SYSTEMS TRAINED IN THE USE OF THE
UNIVERSITY OF CHICAGO BATTERY THAT WERE SENT QUESTIONNAIRE
(*denotes those transit systems that returned
their completed questionnaire)

- * 1. AC Transit
Oakland, California
- * 2. Ann Arbor Transportation Authority
Ypsilanti, Michigan
- * 3. Athens Transit System
Athens, Georgia
- * 4. Battle Creek Transit
Battle Creek, Michigan
- * 5. Bay Metro
Bay City, Michigan
- * 6. Birmingham-Jefferson County Transportation Authority
Birmingham, Alabama
- * 7. Bi-State Development Agency
St. Louis, Missouri
- * 8. Boise Urban Stages
Boise, Idaho
- * 9. Broward County Division of Mass Transit
Fort Lauderdale, Florida
- 10. Capital Area Transit
Raleigh, North Carolina
- * 11. Capital District Transportation Authority
Albany, New York
- * 12. Central Arkansas Transit
Little Rock, Arkansas
- * 13. Central Ohio Transit Authority
Columbus, Ohio
- * 14. Centre Area Transportation Authority
State College, Pennsylvania
- * 15. Chattanooga Area Regional Transportation
Chattanooga, Tennessee
- * 16. Chicago Transit Authority
Chicago, Illinois
- * 17. City of Aurora Transportation Department
Aurora, Illinois
- * 18. City of Elgin
Department of Public Transportation
Elgin, Illinois
- * 19. City of Highland Park
Regional Transportation Authority
Highland Park, Illinois
- * 20. City of Rome Transportation Department
Rome, Georgia
- * 21. CNY Centro, Inc.
Syracuse, New York

- * 48. Mass Transportation Authority
Flint, Michigan
- 49. MassTrans
Oklahoma City, Oklahoma
- * 50. Memphis Area Transit Authority
Memphis, Tennessee
- * 51. Metropolitan Atlanta Rapid Transit Authority
Atlanta, Georgia
- * 52. Metropolitan Bus Authority
Hato Rey, Puerto Rico
- * 53. Metropolitan Suburban Bus Authority
East Meadow, New York
- * 54. Metropolitan Transit Authority
Nashville, Tennessee
- * 55. Metropolitan Transit Authority of Harris County
Houston, Texas
- * 56. Metropolitan Transit Commission
St. Paul, Minnesota
- * 57. Metropolitan Tulsa Transit Authority
Tulsa, Oklahoma
- * 58. Miami Valley Regional Transit Authority
Daytona, Ohio
- * 59. Milwaukee County Transit System
Milwaukee, Wisconsin
- * 60. Monterey Peninsula Transit
Monterey, California
- 61. Montgomery County Ride-On
Rockville, Maryland
- * 62. Municipality of Metropolitan Seattle
Seattle, Washington
- * 63. New Orleans Public Service, Inc.
New Orleans, Louisiana
- * 64. New York City Transit Authority - Surface
Brooklyn, New York
- * 65. North Suburban Mass Transit District
Des Plaines, Illinois
- * 66. Norwalk Transit District
Norwalk, Connecticut
- * 67. Omnitrans
San Bernadino, California
- * 68. Oshkosh Transit System
Oshkosh, Wisconsin
- * 69. Peninsula Transportation District Commission
Hampton, Virginia
- * 70. Phoenix Transit System
Phoenix, Arizona
- * 71. Port Authority of Allegheny County
Pittsburgh, Pennsylvania
- * 72. Queen City Metro
Cincinnati, Ohio
- * 73. Regional Transit Service
Rochester, New York
- * 74. Regional Transportation District
Denver, Colorado

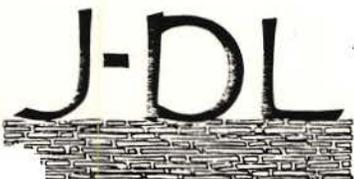
- * 75. Rhode Island Public Transit Authority
Providence, Rhode Island
- * 76. Sacramento Regional Transit District
Sacramento, California
- * 77. Salinas Transit system
Salinas, California
- * 78. San Diego Transit Corporation
San Diego, California
- * 79. San Francisco Municipal Railway
San Francisco, California
- * 80. Santa Monica Municipal Bus Lines
Santa Monica, California
- 81. Snohomish County Public Transportation
Lynnwood, Washington
- * 82. Springfield Street Railway Company
Springfield, Massachusetts
- * 83. South Bend Public Transportation Corporation
South Bend, Indiana
- 84. South Suburban Safeway Lines, Inc.
Harvey, Illinois
- * 85. Southeastern Michigan Transportation Authority
Detroit, Michigan
- * 86. Southeastern Pennsylvania Transportation Authority
Philadelphia, Pennsylvania
- * 87. Southern California Rapid Transit District
Los Angeles, California
- * 88. Stockton Metropolitan Transit District
Stockton, California
- * 89. Sun Tran of Albuquerque
Albuquerque, New Mexico
- * 90. Tidewater Transportation District Commission
Norwalk, Virginia
- * 91. Toledo Area Regional Transit Authority
Toldeo, Ohio
- * 92. Transit Authority, City of Omaha
Omaha, Nebraska
- 93. Transit Authority of Lexington
Lexington, Kentucky
- * 94. Transit Authority of Northern Kentucky
Newport, Kentucky
- * 95. Transit Authority of River City
Louisville, Kentucky
- * 96. Transit Management of Charlotte, Inc.
Charlotte, North Carolina
- * 97. Transit Management of Tuson, Inc.
Tuson, Arizona
- * 98. Tri-Met
Portland, Oregon
- * 99. Tri-State Transit Authority
Huntington, West Virginia
- * 100. Utah Transit Authority
Salt Lake City, Utah
- * 101. Waco Transit System
Waco, Texas

- * 102. Washington Metropolitan Area Transit Authority
Washington, D. C.
- * 103. West Towns Bus Company
Oak Park, Illinois
- * 104. Wilbus Village of Wilmette
Wilmette, Illinois
- * 105. Winston-Salem Transit Authority
Winston-Salem, North Carolina

APPENDIX E

CHARACTERISTICS OF THE POPULATION SURVEYED

	Number	Percent
<u>Population of Area Served (N=96)</u>		
Under 50,000	4	4
50,000 - 99,999	8	8
100,000 - 249,999	21	22
250,000 - 499,999	19	20
500,000 or more	44	46
<u>Number of Buses Operated by Bus System (N=96)</u>		
Less than 100 buses	37	39
100 - 299 buses	29	30
300 - 499 buses	25	26
500 - 999 buses	0	0
1,000 or more buses	5	5
<u>Number of Employed Full-Time Bus Operators (N=97)</u>		
Less than 100 full-time operators	31	32
100 - 299 bus operators	27	28
300 or more bus operators	39	40
<u>Number of Employed Part-Time Bus Operators (N=97)</u>		
No part-time bus operators	58	60
Represents 1% - 9% of total	29	30
Represents 10% or more	10	10



JORDAN-DeLAURENTI & ASSOCIATES, INC.

APPENDIX F.1

October 9, 1980

(Name of Contact Person
and Address)

(Sample:
Letter to Properties
Re: Interviews)

Dear

Jordan-DeLaurenti & Associates, Inc. has been contracted by the Department of Transportation/UMTA to provide a national study entitled "Review and Evaluate the Role of Bus Operator Applicant Testing Procedures in the Personnel Selection Process Within the Transit Industry."

The purpose of this project is to identify the recruitment, testing, selection, and training practices which are currently used by the public transportation industry to hire bus operators. At the completion of the project, we will have developed a comprehensive overview of the current status of these practices in the industry as well as a picture of the emerging needs of the industry for the future. This overview should be very helpful to both UMTA and the transit industry.

The candidate cities for the project are those systems which have received training on the use of the Validated Test Battery developed by the University of Chicago. This includes properties which may or may not be currently utilizing the Battery in their selection procedures.

During the month of October, Jordan-DeLaurenti & Associates, Inc. will meet personally with the Personnel Directors and other human resource staff in a small sample of transit properties across the country. The purpose of these visits is to obtain helpful information on the current use of recruitment, testing, selection and training of bus operators. These visits will help determine the information needed at the next stage of the project when all properties which have been trained in the use of the Battery will be contacted by mail.

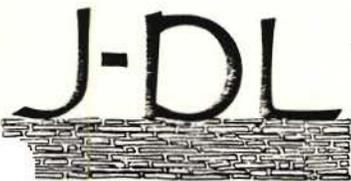
Because of the participation of (name of bus property) in the University of Chicago training, (name) has been selected as one of the cities to participate in the on-site visit phase. We look forward to talking with you and would sincerely appreciate your cooperation and support.

Within the next few days, we will contact you to confirm your participation in this phase of the project and to answer any questions that you may have.

We look forward to talking and meeting with you.

Sincerely,

Mary Jordan-DeLaurenti, Ph.D., President
and Project Manager



JORDAN-DeLAURENTI & ASSOCIATES, INC.

APPENDIX F.2

December 12, 1980

(Name of Contact Person
and Address)

(Sample:
Introductory Letter to
Properties)

Dear

Jordan-DeLaurenti & Associates, Inc. has been contacted by the Department of Transportation/UMTA to conduct a national study entitled "Review and Evaluate the Role of Bus Operator Applicant Testing Procedures in the Personnel Selection Process Within the Transit Industry."

The purpose of this project is to identify the recruitment, testing, selection, and training practices which are currently used by the public transportation industry to hire bus operators. At the completion of the project, we will have developed a comprehensive overview of the current status of these practices in the industry as well as a picture of emerging needs for the future. The overview should be very helpful to both UMTA and to the transit industry.

The transit systems which have been selected for participation in the study are those that have received training in the use of the Validated Test Battery for Bus Operators developed by the University of Chicago. This includes systems which may or may not be currently utilizing the Battery in their selection procedures.

Because your system has received training in the use of the Battery, we invite you to participate in this project. In early January, 1981, we will mail a report form to the appropriate personnel in your organization. To ensure that this reaches that individual, we would appreciate your assistance by completing the enclosed postcard and returning it to us by December 22, 1980.

We sincerely appreciate your participation in this project. Your contribution to this study is important.

Respectfully yours,

Mary Jordan-DeLaurenti, Ph.D.
President and Project Manager

k
Enclosure

APPENDIX F.3

Return Postcard Sent to Properties Prior to
Mailing of Questionnaire

STUDY OF BUS OPERATOR SELECTION PROCEDURES

TO: Dr. Mary Jordan-DeLaurenti

FROM: _____
(Name of Sender)

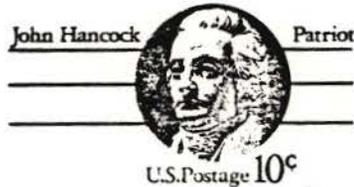
BUS SYSTEM: _____

Please send the report form on bus operator
selection procedures to the individual listed
below:

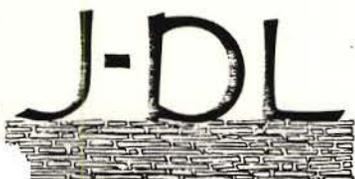
NAME: _____

TITLE: _____

ADDRESS: _____



Jordan-DeLaurenti & Associates, Inc.
400 South Zang Blvd., Suite 1222
Dallas, Texas 75208



APPENDIX F.4

January 5, 1981

(Name of Contact Person
and Address)

(Sample:
Cover Letter to
Survey Form)

Dear :

The Department of Transportation/UMTA has contracted with Jordan-DeLaurenti and Associates, Inc. to study the hiring of bus operator applicants. The purpose of this project is to identify the recruitment, testing, selection, and training practices which are currently used by the public transportation industry to hire bus operators.

Enclosed is the report form which we would like for you to complete and return to us in the enclosed self-addressed envelope. Your contribution to this survey is important in helping to identify, for the first time on a large scale, the policies, practices, and procedures used in hiring bus operators within the industry. Jordan-DeLaurenti and Associates, Inc. appreciates the fact that you are willing to share your experience and knowledge in completing this report form.

As we indicated in our earlier correspondence, the transit systems which have been selected for participation in the study are those that have received training in the use of the Validated Test Battery for Bus Operators developed by the University of Chicago. This includes systems which may or may not be currently utilizing the Battery in their selection procedures. It also includes systems which have not yet implemented the Battery.

We would appreciate it if you could return the completed report form to us in the enclosed self-addressed envelope no later than January 26, 1981. We look forward to receiving your response.

Thank you for your assistance and participation in this project.

Respectfully yours,

Mary Jordan-DeLaurenti, Ph.D.
President and Project Manager

MJ-D:k
Enclosure

APPENDIX G

INTERVIEW INSTRUMENT
FOR ON-SITE VISITS

Name of Person Interviewed:

Date:

Name of Transit System:

Telephone Number:

General Background

What is the approximate size of the city (area) served by the bus system?

How many buses does the system own and operate?

How many full-time employees are there in the entire transit system?

How many part-time operators?

How many hours a week do part-time operators drive?

Is the percentage of part-time operators increasing, decreasing, or staying the same? Why?

What is the approximate racial distribution by sex of your labor force in your population area?

What is the racial distribution of the bus operators in your transit system?

What is the sexual distribution of the bus operators in your transit system?

What is the approximate age distribution of the bus operators in your transit system?

How would you describe the profile of your bus operators in terms of education, training, and experience?

How many applications did you receive last year for bus operator position?

How many full-time bus operators did you hire last year?

How many part-time bus operators did you hire last year?

Are your bus operators union or non-union?

How long have they been unionized?

To what union do they belong?

What is the nature, generally, of the relationship between the union and the management of the transit system?

Is the transit system privately or publicly-owned?

How long has this been the case?

What is the structure of the Board?

What is the structure of the management of the transit system?

Are you a current member of APTA?

Recruitment Policies, Practices and Procedures

Who (position) has the responsibility for developing the recruitment program for bus operators in the transit system?

Who (position) has the assigned responsibility for administering the recruitment program for bus operators in your transit system?

What recruitment policies does your transit system currently have?

What recruitment procedures does your transit system currently use to advertise job openings for bus operators?

(newspaper ads, employment agencies: public and private, educational institutions, public training programs, minority and women's organizations, returning veterans centers, vocational rehabilitation centers, local and state probation and parole departments, local radio, etc.)

What recruitment procedures do you find the most effective in attracting good bus operator applicants?

What recruitment procedures do you find the least effective in attracting good bus operator applicants?

To what extent are bus operator applicants brought in by other employees?

To what extent is "word of mouth" and "walk-ins" depended on?

To what extent are political considerations a factor in identifying applicants?

To what extent do you draw from other employee pools in identifying applicants for positions of bus operator?

Generally, what kinds of problems do you face in your efforts to attract good bus operator applicants which meet your own goals and objectives?

What problems do you face in the years ahead in the recruitment of bus driver applicants?

Other notes on recruitment:

Job Application and Selection Policies, Practices, and Procedures

What is the order of procedures which your transit system uses in the selection and hiring of bus operators?

How does an individual formally apply for a job as bus operator?

Where does a potential applicant go to apply for a position?

Who (position) initially receives inquiries about applicant interest and application procedures?

Who (position) provides initial information about the job, job requirements, and application procedures?

What information (written and verbal) is given to a prospective applicant about the position?

What information is asked for in the application form?

Who takes the application form when it is completed?

How are applications filed?

Are there active as well as inactive files?

How long are applications filed in the active files?

How long are applications filed in the inactive files?

How are the applications processed once they are turned in?

Are the application forms scored or unscored?

If they are scored, who scores them?

Who screens the completed application forms?

What criteria are used for the first screening of applications?

What are the minimum hiring requirements to qualify for the position of bus operator at this first stage?

Do you require any additional documentation when the application is turned in?

Approximately, what percentage of the formal job applications meet the minimum job qualifications?

Do you have different requirements for full-time and part-time applicants? If so, what are they?

After the applicant's application has been screened and approved, what is the next step in the selection process?

Testing

Do you administer any tests to your applicants?

If so, what tests do you administer?

Do you use the University of Chicago Battery?

When did you begin administering the Battery?

How long have you been using the Battery?

Approximately how many individuals have you administered the Battery to since you started using it?

Where is the Battery used in your selection process?

Has that always been the case? If not, where did it used to be? Why did you change it?

Have you used the Battery for all prospective bus operators?

If not, with what applicants have you used it and with what applicants haven't you used it?

Has anyone ever been hired that you are aware of that did not take the Battery or qualify according to it?

Have you used the Battery constantly since you first started using it?

If not, at what period of time did you not administer it and why?

When did you first hear about the Battery?

How were you informed about the existence of the Battery?

Did your organization receive training in the administration of it?

Who made the decision to get the training?

Why was it decided to get the training in the Battery?

When did you receive the first training in the use of the Male Battery?

Where did you receive the training?

Who was trained from your transit system in the administration of the Battery?

Do you recall what you paid for the training?

Was the cost a problem at all in getting funds to attend the training?

What was your opinion about the cost of the first training?

Who conducted the training?

What was your evaluation of the training?

Did it meet your objectives as well as the objectives of the training? Please comment.

Did the person who received the initial training remain in the same position with the transit system?

If not, did the new person receive training?

Did the new person attend a University of Chicago training?

If not, how was that person trained?

Who was responsible for deciding to use the Battery?

For what reasons did your system decide to use the Battery?

Who administers the Battery now?

Are there back-ups to this person? If so, are they trained?

What are the educational and experience backgrounds of the persons administering the test?

Does the person administering the test have any difficulty doing it?

What qualifications do you believe that person should have?

Where is the Battery administered?

What are the conditions under which the Battery is administered?

What cut-off scores do you use? Has this always been the case?
Please comment.

Do you administer all parts of the Battery? Has this always been true?

What is your opinion about the use of the Battery in the selection of bus operator applicants?

What advantages do you see in the utilization of the Battery as it impacts upon your selection process and your work force?

What disadvantages do you see in the utilization of the Battery as it impacts on your selection process and your work force?

What other influences come to bear upon the utilization of the Battery in your system?

Do you intend to continue using the Battery in the future? If so, or if not, please comment.

Have you attended the training in the combined male and female Battery? If not, why not?

If you have received training, when did you receive it?

Where was it provided?

Who attended the training?

Who conducted the training?

Did you administer the combined Battery to all applicants?

If you have not received the training yet, do you intend to get the training at a later date? If no, please comment.

When did you first hear of the combined male and female Battery?

Do you recall what the cost of the training was?

Did this pose a problem for you in getting the funds to attend?

Who made the decision to get the training in the use of the combined Battery?

What cut-off scores do you use?

If you administer other tests to prospective bus drivers, what are they?

Who administers them?

How long have you been using them?

Under what conditions are they administered?

As you look at the next years, what are your views on the use of tests in the selection process?

What needs do you have in terms of selection of bus operators as they relate to testing?

How does the Union view the use of the Battery in the selection process?

Interviewing

Do you conduct interviews in the selection process?

If so, when are they conducted?

Who conducts the interviews?

Is an interview schedule form used?

What criteria are used in rating applicants during the interviews? To what extent are criteria standard and consistent?

Are interviews formally rated?

How many people interview the applicant?

What is the content of the interviews?

What decisions are made at the end of the interviews?

Who makes those decisions?

Background Information

Does your transit system perform background investigations of applicants?

If so, at what point in the selection process does this occur?

What kinds of background do you check?

Who administers this step in the selection process?

At what point in the selection process is a pre-employment health examination required?

Hiring

Who has the responsibility for hiring the bus operator?

What are the respective responsibilities of Personnel and Operations in the hiring process?

What other criteria, if any, are used in making the final decision in addition to the qualifications of application, testing, interviewing, etc.?

Is there any difference in this process when hiring full-time and part-time persons?

What is the role of the Union, if any, in the hiring of bus operators?

What is the policy of promotion from within?

Training

What training is provided for bus operators?

When does this occur?

For what period of time?

Who is responsible for designing the training?

Who conducts the training program?

What is the content of the training?

Does any other training occur during the probationary period? If so, please describe as above.

What areas of need have you identified for training in the future?

What are your general views on the role of training of bus operators?

Probationary Period

Do you have a probationary period?

How long does it extend?

How often is the bus operator evaluated during that period of time?

Who is responsible for completing the evaluations?

Who makes the final decision to hire the operator after the completion of the probationary period?

Summary

In summary, what are your views of the progress that has been made during the last ten years in the recruitment of bus operators?

What are your views of the progress that has been made in the selection of bus operators?

What are your views on the progress that has been made in the training of bus operators?

Generally, what are your views on the needs and challenges which face you and the transit system during the next few years in the recruitment, selection, and training of bus operators?

As you focus in on testing, what are your views on the needs and challenges which face you and the transit system during the next few years?

APPENDIX H

LIST OF TRANSIT SYSTEMS AT WHICH
ON-SITE INTERVIEWS WERE CONDUCTED

<u>Transit System</u>	<u>City</u>
Alameda-Contra Costa Transit	Oakland, California
Capital District Transportation Authority	Albany, New York
Chicago Transit Authority	Chicago, Illinois
CITRAN/McDonald Transit	Fort Worth, Texas
CNY Centro, Inc.	Syracuse, New York
Metropolitan Atlanta Rapid Transit Authority	Atlanta, Georgia
Metropolitan Transit Authority	Nashville, Tennessee
San Francisco Municipal Railway	San Francisco, California
South Bend Transportation Corporation	South Bend, Indiana

APPENDIX I

BUS OPERATOR SELECTION PRACTICES

TRANSIT SYSTEM STUDY



JANUARY 1981

JORDAN-DELAURENTI & ASSOCIATES, INC.

400 South Zang Blvd.
Dallas, Texas 75208

TRANSIT SYSTEM QUESTIONNAIRE

The Department of Transportation/UMTA has contracted with Jordan-DeLaurenti and Associates Inc. to study the hiring of bus operator applicants. The purpose of this project is to identify the recruitment, testing, selection, and training practices which are currently used by the public transportation industry to hire bus operators.

Your contribution to this survey is important in helping to identify, for the first time on a large scale, the policies, practices, and procedures used in hiring bus operators within the industry. Jordan-DeLaurenti and Associates appreciates the fact that you are willing to share your experience and knowledge in completing this questionnaire.

Directions

For many of the questions, you are asked to put an X next to the answer that best describes your transit system. For the remainder of the questions, we ask you to respond briefly in the space provided following the question. If your response requires additional space, please don't hesitate to continue on a separate sheet of paper. If you use additional space, be sure to identify the number of the question you are answering.

If you have any questions concerning the completion of this survey, do not hesitate to call us at (214) 942-3511 between the hours of 9:00 a.m. and 5:00 p.m. (Central Standard Time). Ask for Dr. Mary Jordan-DeLaurenti or Lori Palmer.

This is a survey of the procedures that are currently in practice. Please be sure that you answer all questions that apply to you and your transit system. Your answers will depend on what procedures your property is using and sometimes on the size of your property.

Date _____

Name of Property _____

Your Name _____

Your Position or Title _____

Your Telephone Number _____

PART I. DESCRIPTION OF YOUR TRANSIT SYSTEM

Directions: Answer the following questions by placing an X before the statement which best answers the questions. Choose only one answer for each question, unless otherwise directed.

1. The population of the area served by your bus system is
 1. 500,000 or more people
 2. 250,000 to 499,999 people
 3. 100,000 to 249,999 people
 4. 50,000 to 99,999 people
 5. under 50,000 people

2. How many buses does your system operate?
 1. 1,000 or more buses
 2. 500 to 999 buses
 3. 300 to 499 buses
 4. 100 to 299 buses
 5. less than 100 buses

3. How many full-time bus operators do you employ? Fill in the number here. _____

4. How many part-time bus operators do you currently employ? Fill in the number here. _____

5. What is the number of male bus operators in your system within the following categories? Fill in the number next to the category.
 Black, non-hispanic males
 White, non-hispanic males
 Hispanic males
 Native American Indian males
 Oriental and other males

6. What is the number of female bus operators in your system within the following categories? Fill in the number next to the category.
 Black, non-hispanic females
 White, non-hispanic females
 Hispanic females
 Native American Indian females
 Oriental and other females

7. How many applications did you receive in the calendar year 1980 for the position of bus operator? Fill in the number here. _____

8. How many full-time bus operators did you hire in the calendar year 1980? Fill in the number here. _____

9. How many part-time bus operators did you hire in the calendar year 1980? Fill in the number here. _____

10. Is your transit system managed by
- 1. the owner of the system
 - 2. a contract management company
11. Do you have a formal personnel unit which controls the hiring process in your system?
- 1. Yes
 - 2. No

PART II. RECRUITMENT AND APPLICATION PROCEDURES FOR BUS OPERATORS

In the following list place an X before the means that are ordinarily used to recruit bus operators for your system. You may check more than one item in the list; check all items that apply to recruiting in your system.

12. Your bus system uses for recruiting:
- 1. media advertisements (newspapers, radio and/or TV)
 - 2. employment agencies
 - 3. educational institutions such as schools, vocational rehabilitation centers, etc.
 - 4. minority and women's organizations, and/or community centers
 - 5. recommendations of bus operators or other employees of your system

13. State briefly here any problems, concerns or issues that have arisen in recruiting bus applicants for your system.

14. How often are applications taken for bus operators during the course of a year? (Check one)

- 1. Once a year
- 2. More than once a year, at specified times
- 3. On a walk-in basis, at anytime

15. How long are these applications kept on active file? (Check one)

- 1. Less than six (6) months
- 2. Six (6) months to a year
- 3. More than a year

16. Do other agencies take applications and do screening of bus operator applicants for your system?

- 1. Yes
- 2. No

17. If you answered yes to question #16, check here the agencies that take applications and screen bus operator applicants for your system. You may check more than one if appropriate.

- 1. The employment security agency
- 2. The Civil Service Commission
- 3. Other agencies, please list name(s) here:

18. Do any of the agencies listed in question #17 administer testing of applicants for bus operator?

- 1. Yes
- 2. No

If yes, who administers the testing? _____

19. Write out the procedures you use in hiring bus operator applicants. List the procedures in the order in which they occur. A sample answer to this question would be:

- | | |
|--|--------------------------|
| 1. Screen applications | 5. Conduct interview |
| 2. Conduct initial screening interview | 6. Require physical exam |
| 3. Administer written test | 7. Conduct training |
| 4. Conduct background check | |

In the following space, please list your own procedures in the order in which they occur. Add more lines, if necessary.

- | | |
|----------|----------|
| 1. _____ | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

20. List here the minimum hiring requirements used by your system for hiring bus operators.

21. Are your minimum hiring requirements available in writing to prospective employees?

- 1. Yes
- 2. No

22. Do you have different requirements for full-time and part-time bus operator applicants?

- 1. Yes
- 2. No

If the answer to question #22 was yes, please explain in the space below the differences in requirements for full-time and part-time applicants.

PART III. INTERVIEWING AND BACKGROUND INFORMATION

24. Are interviews a part of your selection process for bus operators?

- 1. Yes
- 2. No

25. Is the interview used to screen out applicants for the position of bus operator?

- 1. Yes
- 2. No

26. Does your transit system do a background check on bus operator applicants?

- 1. Yes
- 2. No

PART IV. TESTING PROCEDURES FOR APPLICANTS

27. Do you administer any tests to bus operator applicants prior to the training period for applicants?

- 1. Yes
- 2. No

28. If you do test applicants before their training period, list below the tests you use.

29. What do you see as the advantages of using these tests? Please state briefly.

30. Have you ever used the University of Chicago Validated Selection Test Battery for Bus Operators? Check the appropriate answers that apply to your transit system.

- 1. Yes, we have used the battery validated for males
- 2. No, we have never used the battery validated for males
- 3. Yes, we have used the battery validated for females
- 4. No, we have never used the battery validated for females

If you answered no to both items 2 and 4 in question #30, proceed to question #48 and answer it and all of the following questions to the end of the survey.

If you answer yes to either item 1 or 3 (or both) in question #30, proceed to answer questions #31 to #47 and all of the following questions to the end of the survey.

31. Do you now use the University of Chicago Validated Selection Test Batteries for Bus Operators? Check the appropriate answers that apply to your transit system.

- 1. Yes, we use the battery for males
- 2. No, we do not use the battery for males
- 3. Yes, we use the battery for females
- 4. No, we do not use the battery for females

32. Did you use the University of Chicago Validated Test Battery at one time and then stop using it?

- 1. Yes, we used it, but we do not use it now
- 2. No, we have not stopped using it

If you answered no to question #32, proceed to question #35.

If you answered yes to question #32, answer questions #33 and #34 and then proceed to question #48.

33. How long did you use the University of Chicago Battery before you discontinued its use? Fill in the number here.

34. State briefly why you discontinued the use of the University of Chicago Battery.

35. How long have you been using the University of Chicago Battery for males? (Check one)

- 1. Less than a year
- 2. One to two years
- 3. Three to four years

36. Has the person who administers the University of Chicago Battery for males been trained _____? (Check one)

- 1. in Chicago by the University of Chicago
- 2. in a location outside of Chicago by the University of Chicago
- 3. in house, at your bus property, by others

37. Do you administer the University of Chicago Battery for males to all males who apply for the position of bus operator?

- 1. Yes
- 2. No

38. If you answered no to question #37, how do you select those males who will be tested?

39. Are you administering the University of Chicago Battery for females to females?

- 1. Yes
- 2. No

40. Has the person who administers the University of Chicago Battery for females been trained _____?

- 1. in Chicago by the University of Chicago
- 2. in a location outside of Chicago by the University of Chicago
- 3. in house, at your bus property, by others

41. Do you administer the University of Chicago Battery for females to all females who apply for the position of bus operator?

- 1. Yes
- 2. No

42. If you answered no to question #41, how do you select those females who will be tested?

43. If your test administrator has not received training from the University of Chicago in administering either the male or female battery, please explain why?

44. How does the bus operator's union feel about the use of the University of Chicago Battery? (Check one)

- 1. They support the use of the battery
- 2. They are opposed to the use of the battery
- 3. They do not care if the battery is used
- 4. I do not know how the union feels about the use of the battery
- 5. We do not have a union

45. List below any advantages you see in using the University of Chicago Test Battery.

46. List below any disadvantages you see in using the University of Chicago Test Battery.

47. Four important desirable outcomes have been identified for the use of the University of Chicago Test Battery. They are:

- 1. A decrease in absenteeism (a measure of reliability)
- 2. A decrease in turnover rate
- 3. A decrease in accident rate
- 4. Potential for promotion

Please comment on the degree to which you believe that these four factors have been affected since your transit system has been using the Battery.

- 1. Absenteeism: _____
-

2. Turnover rate: _____

3. Accident Rate: _____

4. Promotion potential: _____

48. Have you had any legal problems in hiring bus operators that are related to testing?

- _____ 1. Yes
_____ 2. No

49. If you answered yes to question #48, please explain briefly in the space below the legal problems you have had in regards to testing.

50. As you look to the future, what do you see as your needs in the area of testing for the position of bus operator. Please state these needs briefly here.

PART V. TRAINING AND PROBATIONARY PERIOD FOR APPLICANTS

51. In training your bus operator applicants, do you provide a classroom training period? (Check one)

- _____ 1. Yes
_____ 2. No

52. If you answered yes to question #51, how long is the training period? (Check one)

- _____ 1. 1-8 hours
_____ 2. 9-16 hours
_____ 3. 17-40 hours
_____ 4. 41-80 hours
_____ 5. more than 80 hours

53. Are tests given during and/or at the conclusion of the classroom training period? Check the appropriate answers that apply to your transit system.

- 1. Yes, tests are given during the classroom training period
- 2. No, tests are not given during the classroom training period
- 3. Yes, tests are given at the conclusion of the classroom training period
- 4. No, tests are not given at the conclusion of the classroom training period.

54. Do you disqualify people from being an employee if they fail one or more of the classroom tests? (Check one)

- 1. Yes
- 2. No

55. List briefly here the four most important topics covered during the classroom training period.

56. Do you provide supervised performance training (driving buses, etc.) for bus operator applicants?

- 1. Yes
- 2. No

57. If you answered yes to question #56, how long does the supervised (performance training) period last? (Check one)

- 1. 1-8 hours
- 2. 9-40 hours
- 3. 41-80 hours
- 4. more than 80 hours

58. Do you give performance tests to your bus operator applicants during/or at the conclusion of their performance training period? Check the appropriate answers that apply to your transit system.

- 1. Yes, tests are given during the performance training period.
- 2. No, tests are not given during the performance training period.
- 3. Yes, tests are given at the conclusion of the performance training period.
- 4. No, tests are not given at the conclusion of the performance training period.

59. Are bus operator applicants screened out of the hiring process if they fail one or more of the performance tests?

- 1. Yes
- 2. No

60. Do you feel there is a need for additional or other training (classroom or performance) that is not presently covered in your system's training program? (Check one)

- 1. Yes
- 2. No
- 3. I'm not sure.

61. If you answered yes to items (1) or (3) in question #60, please explain these needs briefly in this space.

62. Do you have a probationary period for bus operator applicants? (Check one)

- 1. Yes
- 2. No

63. If you answered yes to question #62, what is the length of time of your probationary period? Write the exact number of days in the space below.

64. How often is the bus operator evaluated during his or her probationary period? (Check one)

- 1. One evaluation
- 2. Two evaluations
- 3. Three evaluations
- 4. More than three evaluations

65. List below the most common reasons for which applicants for bus operator are dropped during the hiring process in your transit system?

Thank you for your cooperation and effort in completing this questionnaire. We would like you to add any comments or criticisms you wish to make about this questionnaire in the space below.

YOUNG 01-12

APPENDIX J

REFERENCES

- American Public Transit Association. Transit fact book. Washington, D.C.: American Public Transit Association, 1978.
- Baehr, M. E. National validation of a selection test battery for male transit bus operators. Washington, D.C.: U. S. Department of Transportation, 1976.
- Baehr, M. E., Penny, Robert E., & Froemel, E.C. A validation and analysis of selection procedures for male and female bus operators. Washington, D.C.: U. S. Department of Transportation, 1980.
- Byham, W.C. Common selection problems can be overcome. Personnel Administrator, 1978, 23(8), 42-47.
- Dipbooye, R.L., Arvey, R.D., & Terpstra, D.E. Equal employment and the interview. Personnel Journal, 1976, 55, 520-522.
- Gatewood, R.D., Ledvinka, J. Selection interviewing and EEO for objectivity. Personnel Administrator, 1979, 24(12), 51-54.
- Gatewood, R.D., & Schoenfeldt, L.F. Content validity and EEOC: A useful alternative for selection. Personnel Journal, 1977, 56, 520-522+.
- Grant, D.L. Issues in personnel selection. Professional Psychology, 1980, 11(3), 369-384.
- Greenlaw, P.S. & Kohl, J.P. Selection interviewing and the new uniform federal guidelines. Personnel Administrator, 1980, 74-80.
- Griggs v. Duke Power Company, 401 U.S. 424 (1971). (United States Reports, volume 401, Supreme Court Decision 1971)
- Guion, R.M. Content validity in moderation. Personnel Psychology, 1978, 31(2), 205-213.
- Holmes, R.A. What's ahead for personnel professionals in the '80's? Personnel Administrator, 1980, 25(6), 33-37, 82+.
- Lazer, R. Performance appraisal: What does the future hold. Personnel Administrator, 1980, 25(7), 69-73.
- Lubben, G.L., Thompson, D.E., & Klasson, C.R. Performance appraisal: The legal implications of Title VII. Personnel, 1980, 57(3), 11-21.

- Miller, E.C. An EEO examination of employment applications. Personnel Administrator, 1979, 57, 154-162.
- Murphy, P.J. Memorandum to J.H. Elcock. April 16, 1975.
- Norris, D.R. & Buford, J.A., Jr. A content valid writing test: A case study. Personnel Administrator, 1980, 25(1), 40-44.
- Pace, L.A. & Schoenfeldt, L.F. Legal concerns in the use of weighted applications. Personnel Psychology, 1977, 30(2), 159-166.
- Peat, Marwick, Mitchell & Company. Study of operator absenteeism and workers' compensation trends in the urban mass transportation industry. Washington, D.C.: U.S. Department of Transportation, 1980.
- Simon, W.A., Jr. A practical approach to the uniform selection guidelines. Personnel Administrator, 1979, 24(11), 75-80.
- U.S. Department of Transportation, Urban Mass Transportation Administration. A directory of regularly scheduled, fixed route local public transportation service in urbanized areas over 50,000 population. Washington, D.C.: U.S. Department of Transportation, 1980.
- U.S. Department of Transportation, Urban Mass Transportation Administration. A directory of regulary scheduled, fixed, route, local rural public transportation service. Washington, D.C.: U.S. Department of Transportation, 1980.
- U.S. Equal Employment Opportunity Commission, Office of Personnel Management, Department of Justice, Department of Labor & Department of the Treasury. Adoption of questions and answers to clarify and provide a common interpretation of the uniform guidelines on employee selection procedures. Federal Register, 44(43), March 2, 1979, 11996-12009.
- U.S. Equal Employment Opportunity Commission, Civil Service Commission, Department of labor, Department of Justice. Adoption by four agencies of uniform guidelines on employee selection procedures (1978). Federal Register, 43(166), August 25, 1978, 38290-38315.

S.C.R.T.D. LIBRARY

