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A COMPARATIVE STUDY OF EMPLOYMENT OUTCOMES OF THE
PROJECTS WITH INDUSTRY AND THE STATE/FEDERAL
VOCATIONAL REHABILITATION PROGRAMS

by

Robert J. Leneway

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Public Administration
School of Public Affairs and Administration

Western Michigan University
Kalamazoo, Michigan
June 1991

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programs**

Leneway, Robert Joseph, D.P.A.

Western Michigan University, 1991

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A comparative program evaluation study of marketing techniques and organizational dynamics relies extensively on the cooperation of those who are involved with the programs. The eagerness of so many local, state, and national persons to share their knowledge, insights, and skills to the completion of this study testify to the desire of these representatives from both the public and private sectors to provide persons with disabilities with improved opportunities for independence and enhanced self-worth through competitive employment. It is regrettable that they all cannot be recognized for their invaluable contributions to this study.

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Robert J. Leneway

TABLE OF CONTENTS

ACKNOWLEDGMENTS	ii
LIST OF TABLES	x
LIST OF FIGURES	xii
CHAPTER	
I. INTRODUCTION	1
Statement of the Problem	1
Comparing the Employment Outcomes of Vocational Rehabilitation Programs	5
The Vocational Rehabilitation Model	8
The Purpose of This Study	9
Organization of This Study	9
II. REVIEW OF THE LITERATURE	12
Introduction	12
An Historical View	13
An Historical View of the Public-Private Relationship	13
Social Responsibility in a Commercial Republic ..	16
An Historical Overview of Rehabilitation and Disability	19
Disability in a Commercial Republic	23
Understanding the Differences	32
Projects With Industry Program	35
The Role of Employer Attitudes	38
A PWI Model	41

Table of Contents--Continued

CHAPTER

Related Studies on PWI Effectiveness	43
Related Studies on State/Federal (Section 110) Effectiveness	46
Employer Attitudes Towards Persons With Disabilities.....	49
Marketing and Rehabilitation	49
Employer Participation in the Rehabilitation Process	52
The Development of PWI Performance Indicators ...	53
Multiattribute Utility Theory	55
Group Foundation Theory and the PWI Marketing Approach	56
Summary	59
III. RESEARCH DESIGN AND METHODOLOGY	61
Introduction	61
Theoretical Framework	62
The Research Model	63
General Assumptions	63
Limitations of the Research	65
Hypotheses	67
Research Design	68
Data Collection	72
National VR Program Databases	73
Market Research Case Study	78
Data Analysis	81

Table of Contents--Continued

CHAPTER

Case Study Survey Questionnaire	82
Summary of the Research Design and Methodology	84
IV. FINDINGS	86
Section I--A National Level Comparison	86
Introduction	86
Internal Validity	90
Outcome Measures	96
Input Measures	97
Quality Outcome Differences	101
Demographic Labor Force Relationships	105
State-National Level Comparisons	109
Conclusion for Section I	110
Section II--A State Level Comparative Analysis	111
Introduction	111
Comparative Placement Rates in Michigan	111
Demographics, Disabilities, and Placement Outcomes	112
Michigan's Projects With Industry Programs ...	116
Michigan Rehabilitation Services' Marketing Study	117
Michigan's PWI Marketing Survey	121
Employer Characteristics	122
Independent Variables: Perceptual Differences ..	124
Reliability Analysis	124

Table of Contents--Continued

CHAPTER

Factor Elements	124
Comparing Factor Structures	126
Relationship Management Factors	127
Factors Specific to Persons With Disabilities	134
Screening Factors	139
Supply and Training Factors	144
Strategic Effectiveness	149
Satisfaction: The Dependent Variable	159
Regression Analysis of Customer Satisfaction .	161
Summary of the Multiple Regression Results ...	164
Motivational Reasons for Employers to Join a BAC	165
Placement Rate Versus BAC Activity	167
Overall Results Summary	168
V. CONCLUSIONS	171
The Research Process	171
Summary of the Results	173
Implications of the Study	178
Policy Implications	182
Limitations of the Present Research	185
Implications for Future Research	186
A Concluding Comment	190

Table of Contents--Continued

APPENDICES	191
A. PWI Marketing Survey and Cover Letter	192
B. MRS Telephone Survey	202
C. Comparison Graphs of the Five Marketing Factors	214
D. PWI Program Write-Up	220
E. RSA PWI Performance Compliance Indicators	226
F. Factor Analysis	230
G. Approval Letter From the Human Subjects Institutional Review Board	232
BIBLIOGRAPHY	234

LIST OF TABLES

1. Fiscal Year 1988 State Vocational Rehabilitation Client Reporting	75
2. Vocational Rehabilitation Section 110 Program Work Status at Closure	90
3. Competitive Employment Outcomes for VR and PWI Clients for Fiscal Years 1983-1987	93
4. VR-110 and PWI Client Disabilities Levels and Types	98
5. State/Federal VR-110 and PWI Weekly Income Levels	102
6. VR-110, PWI, and U.S. Labor Force Occupational Outcomes for New Workers	104
7. Demographic Variables for VR-110 and PWI Clients for Fiscal Year 1983	106
8. Linear Regression Relationships Between Primary Characteristics of Projects With Industry, Vocational Rehabilitation Referred Workers, and All United States Entry Level Workers in 1987	109
9. Demographic Characteristics of Selected Populations	113
10. Primary Disability Types and Levels	114
11. Rate of Surveys Returned per Program	121
12. A Comparison of Relationship Management PWI and MRS Importance <u>t</u> -Test Values	128
13. A Comparison of Relationship Management PWI and MRS Performance <u>t</u> -Test Values	129
14. A Comparison of Relationship Management MRS Importance and Performance <u>t</u> -Test Values	131
15. A Comparison of Relationship Management PWI Importance and Performance <u>t</u> -Test Values	133
16. A Comparison of PWI and MRS Handicapper Specific Importance <u>t</u> -Test Values	135

List of Tables--Continued

17.	A Comparison of PWI and MRS Handicapper Specific Performance <u>t</u> -Test Values	136
18.	A Comparison of Handicapper Specific PWI Importance and Performance <u>t</u> -Test Values	137
19.	A Comparison of Handicapper Specific MRS Importance and Performance <u>t</u> -Test Values	138
20.	A Comparison of PWI and MRS Importance Screening <u>t</u> -Test Values	140
21.	A Comparison of PWI and MRS Performance Screening <u>t</u> -Test Values	141
22.	A Comparison of MRS Importance and Performance Screening <u>t</u> -Test Values	142
23.	A Comparison of PWI Importance and Performance Screening <u>t</u> -Test Values	143
24.	A Comparison of PWI and MRS Supply and Training Importance <u>t</u> -Test Values	145
25.	A Comparison of PWI and MRS Supply and Training Performance <u>t</u> -Test Values	146
26.	A Comparison of PWI Supply and Training Importance and Performance <u>t</u> -Test Values	147
27.	A Comparison of MRS Supply and Training Importance and Performance <u>t</u> -Test Values	148
28.	Mean Satisfaction Ratings of Organizations That Help People to Find Employment	160
29.	Satisfaction Levels of BAC Members and Employers: <u>t</u> -Test Values	161
30.	Prediction of Employer Satisfaction for Projects With Industry and Michigan Rehabilitation Services by Regression Analysis	163
31.	Rank Order of Reasons for Being Involved With a Business Advisory Group	166
32.	Summary of the Outcomes of the Hypothesis Testing	174

LIST OF FIGURES

1. A Projects With Industry Flow Chart	59
2. Work Status of VR-110 Clients	89
3. PWI & VR-110 Placement Rates	94
4. Types of Disabilities Served	100
5. Relationship Management Strategic Effectiveness Plot	150
6. MRS Relationship Management Strategic Effectiveness Plot	151
7. PWI Handicapper Specific Strategic Effectiveness Plot	152
8. Handicapper Specific Strategic Effectiveness Plot	153
9. Screening Strategic Effectiveness Plot	154
10. MRS Screening Strategic Effectiveness Plot	155
11. PWI Supply and Training Strategic Effectiveness Plot	156
12. MRS Supply and Training Strategic Effectiveness Plot	157

CHAPTER I

INTRODUCTION

Our nation faces a serious policy dilemma. On the one hand, our health and disability programs have experienced more than a 500% increase in the last 10 years, consuming well over \$100 billion annually in public and private expenditures. On the other hand, it is apparent that individuals with disabilities are trapped in a world of economic insecurity, personal frustration and unwanted dependency. The question, then, is how can we as just societies maintain fiscal prudence and sound management in our public and private efforts without abdicating our responsibility to citizens who are disabled. (Galvin, 1988, p. 8)

Statement of the Problem

All developed nations and most developing nations have provided vocational rehabilitation services to help citizens with disabilities enter employment or return to work following illness or injury. Yet, according to Cornes (1987), none can claim to have solved the employment problems encountered by these citizens. Furthermore, the Social Security designed for these people was intended primarily to cover somewhat brief periods of incapacity or unemployment. Thus, these recipients of financial assistance are much more vulnerable to poverty, and its related health, personal, and social problems.

According to the U.S. Department of Labor, Bureau of Labor Statistics (1989), 32.5 million, or 14.1%, of the 231.5 million noninstitutional residents in the United States have an activity

disabling condition. The U.S. Department of Education's Rehabilitation Services Administration estimates that there are 5 million disabled Americans available for work. Were support for increased rehabilitation services available, most of the clients could be successfully engaged in competitive employment. Choisser (1987) claimed that these nonworking people with disabilities annually cost American taxpayers about \$25 billion, approximately 2.5% of the total federal budget. If employed, even at the current minimum wage (\$4.35 per hour), these people would generate more than \$47 billion in wages. When combined with the tax savings for what would then be unnecessary income maintenance, the result would be an \$80 billion advantage to the economy. This represents a sizable potential reduction to the national debt.

Harris and Associates conducted a national poll in 1986 and found that two-thirds of all Americans with disabilities between the ages of 16 and 64 are unemployed; yet most of those not working wanted jobs, even while corporations interested in hiring people with disabilities encountered problems locating and recruiting them.

Bowe (1983) reported that among working age Americans, 16 through 64 years old, more than 13 million are persons with employment disabilities. Based on current population survey results (McNeil, 1982), the percentage of workers with disabilities in the work force roughly doubles at 10-year intervals after age 44. In March 1982, persons with disabilities comprised 7.1% of the 35-44 age group, 12.3% of those 45-54, and 24.1% of those 55-64. Bowe stated the belief that by the turn of the century one-half of the

U.S. population will be physically disabled, chronically ill, or over 65 years of age. This puts a heavy financial burden on active workers. As the year 2000 draws near, placing persons with disabilities will become even more important to the American economy.

The unemployment level of persons with disabilities describes but one aspect of the problem. The tremendous waste of human resources must be factored equally into this national economic equation. According to McConnell (1986), "the human resource issue not only represents a loss in national productivity and economic resources, but also has profound implications for the quality of life for handicapped individuals" (p. 2).

Since the demand for rehabilitation resources by persons with disabilities greatly exceeds current supply, programs need to become more efficient in the allocation and delivery of their resources. "Public policies in rehabilitation," argued Berkowitz (1988), "must take into account a great many technological possibilities, organizational dynamics, and demands for resource allocations among competing levels of decision making" (p. 286). Spurred by a drive for competitive excellence, both private and public sector organizations are restructuring to become more market driven (Kotler, 1975; Peters & Waterman, 1982).

In an effort to show a potential solution to this public concern, each year the Rehabilitation Service Administration (RSA) partially funds, at an 80% level, state agency programs under Section 110 of the 1986 Rehabilitation Act.

This funding is commonly known as the basic state/federal Vocational Rehabilitation program. RSA also directly solicits proposals for projects that in partnerships with business and industry will facilitate competitive employment of people with disabilities. Those projects, according to Choisser (1987), were selected to receive financial grants to permit operation under a program called Projects With Industry (PWI). In Fiscal Year 1991, Projects With Industry was appropriated \$19.7 million compared to \$1.9 billion for the traditional state/federal Section 110 basic programs of the Rehabilitation Act.

The first PWI federal grant's officer, Fleming (1987), provided this perspective on the federal Projects With Industry program:

The idea of America is the energy of the free enterprise system. Why not utilize that energy to help get people out of hospitals, rehabilitation centers, and homes and move them into the mainstream of life. It's a cost effective approach to bring PWI into the common language of the marketplace and open up the system and let them compete like everyone else. That's what democracy is all about and that's what PWI has been able to capture. (p. 6)

There is still little or no research to sustain these claims. Indeed, in a study comparing the opinions of Projects With Industry and non-PWI employers concerning the value of persons with disabilities as competitive employees, Wesolek (1985) claimed to find no significant differences. Partly because of the lack of evaluative research, Projects With Industry remains as a series of projects, subject to annual Congressional authorization instead of being granted ongoing program status.

Comparing the Employment Outcomes of Vocational Rehabilitation Programs

The history of vocational rehabilitation has been marked by continuing investment in research and program development (Cornes, 1987) to improve the effectiveness of services over the years:

It could be concluded that the return on this investment has been very low--but this conclusion almost certainly would underestimate the time and effort needed simply to mark time or maintain effectiveness in a rapidly changing labor market while at the same time attempting to assist clients with more severe disabilities or with poor or irrelevant vocational qualifications. (p. 133)

The problems facing persons with disabilities are succinctly expressed in terms of limitations imposed by functional loss due to the physical impairment itself, limitations imposed upon individuals with disabilities by society, and self-imposed limitations or withdrawal or aggression resulting from the disability and society's attitude toward it.

As stated in the 1986 amendments to the Rehabilitation Act of 1973, the purpose of PWI is "to promote opportunities for competitive employment of individuals with handicaps . . . to engage the talent and leadership of private industry in the rehabilitation process . . . and to secure the participation of private industry in providing job opportunities" (Sec. 621).

The legislative intent of the state/federal rehabilitation programs since passage of the Vocational Rehabilitation Act of 1920 (United States Statutes at Large, 1920) has always been to promote equal "opportunities for competitive employment of individuals with handicaps." Thus, there are two major legislated rehabilitation

programs with the same primary legislative intent--the competitive placement of persons with disabilities.

Nadolsky (1985) claimed that "the growth of the rehabilitation movement over the past four decades closely corresponds to the evolution of the United States into a service society" (p. 8). The Vocational Rehabilitation Act Amendments of 1965 (P.L. 89-333) greatly increased federal allocations to state rehabilitation agencies. Proposition 13 in California, Sunset Laws, and the Rehabilitation Act of 1973 (P.L. 93-112) then provided the direction for a decade of accountability during the 1970s. Many civil servants became disenchanted with the public rehabilitation program as a result of the lengthy time required to prove effectiveness and adhere to government-imposed accountability procedures. They subsequently either sought private sector employment, developed private rehabilitation programs, or sought other alternatives within the public rehabilitation program. The increasing need for accountability and diversification has led to the initiation and development of a different approach to the competitive placement of persons with disabilities; thus, Congress initiated the Projects With Industry program. Under the encouragement of the PWI legislation, rehabilitation programs now develop relationships with the private sector to facilitate the rehabilitation process.

According to Nadolsky (1985), the 1990s will be a decade of quality:

Much like a teenager or young adult who is experimenting with various alternatives before making lifetime commitments, the rehabilitation movement, as well as the service

society in which it operates, is actively involved in exploring diverse service options at the present time In order to survive in the 1990s, personnel associated with rehabilitation programs must conduct an internal analysis of their practices in relation to the goal of rehabilitation and find compatible ways to improve their ability to offer quality services to disabled people. (p. 10)

Although much of the research and development investment has been made in technical and programmatic developments, little has been done to explore the personal circumstances of persons with disabilities and the needs of the employers.

Our primary assumption is that the major differences between the Projects With Industry (PWI) and the traditional Vocational Rehabilitation program are in their marketing orientations. While as a concept, marketing is normally associated with business situations, marketing also occurs in the rehabilitation process. Pride and Ferrell (1980) defined marketing as consisting of "individual and organizational activities aimed at facilitating and expediting exchanges within a set of dynamic environment forces" (p. 7). Marketing deals not only with goods and services, but also with concepts and issues.

A distinction should be made between "marketing" and "sales." Kotler (1975) defined sales as a concept having "a product orientation backed by selling and promoting aimed at generating high sales" (p. 44). According to Young, Rosati, and Vandergoot (1986):

Many rehabilitation personnel view the pressure to achieve placement goals and quotas as a logical benchmark of this approach. . . . A sales approach may not be appropriate in a placement context since it may lead to getting any job for the client, even a poor one. (p. 37)

In rehabilitation, marketing focuses on the planned placement and follow-up of persons with disabilities into the employment marketplace. Although there is a promotion of other outcomes such as independent living and supported employment, competitive employment remains as the primary outcome of the rehabilitation process. Employers have needs to which rehabilitation professionals can respond. This has reinforced the idea that in addition to people with disabilities, employers are also clients of the rehabilitation system (Young et al., 1986).

The Vocational Rehabilitation Model

There are three interrelated dimensions of work disability: the presence or perception of physical or mental disabilities, a reduced work capacity, and an unaccommodating environment. Public policy in the United States and elsewhere has attempted to deal legislatively with each of these three interrelated dimensions. There are two major programs that have been established through federal legislation that place persons with disabilities and reduced work capacity directly into a mostly unaccommodating labor market. These are the basic state/federal Vocational Rehabilitation program, as defined by Section 110 of the Vocational Rehabilitation Act and Projects With Industry. Therefore, in its most fundamental form, the assumption of the theoretical model is that these two programs have similar and comparable legislative intent. A series of objectives, from the broader to the more specific, provide the theoretical model from which the research hypotheses are derived.

The Purpose of This Study

The major goal of this study was to assist the rehabilitation services community in developing a marketing strategy that will improve the number and quality of successful job placements and thus lead to enlarged employer services. The major objective of this study was to compare job closure outcomes of the state/federal (Section 110) Vocational Rehabilitation program with those of the federally funded Projects With Industry and to compare differences in these closure outcomes in terms of employer perceptions and expectations of these two rehabilitation marketing programs. This study primarily investigated the strategic effectiveness of these two programs in the employment marketplace. It also compared the employers' satisfaction with PWI and the state/federal Section 110 programs as expressed in marketing surveys. The traditional approach to vocational rehabilitation placement thus was compared with the more market-driven approach found in PWI.

Organization of This Study

In Chapter II a literature review is presented that discusses disability and employment, corporate social responsibility, vocational rehabilitation and public policy, Projects With Industry, differences between the private and public sectors, and the evolution of legislation for both programs. The chapter traces the evolution of attitudes toward persons with disabilities in both the private and the public sectors. The conceptual foundation of the

state/federal Vocational Rehabilitation programs and of the Projects With Industry program is reviewed. Prior studies of both programs are examined, and outcome differences are predicted in terms of nonprofit marketing orientation differences. Multiattribute utility, group foundation, and marketing theories are used to help in the identification of research variables for this study. This literature review concludes with a look at some implications of nonprofit marketing for public policy more generally.

Chapter III describes the methodology used in this study. Included are a description of the theoretical framework, the research design, the method for data analysis, and the rationale for selecting the methodology. This rationale provides the general assumptions underlying the study, the limitations of the research, and the research hypotheses. This chapter includes a comparative analysis using several national databases and a more detailed case study analysis surveying the perceptions and expectations of Michigan vocational rehabilitation employers.

Possible explanations for existing differences were sought in state level analysis of the major vocational rehabilitation programs in Michigan. This state-level analysis draws on a recent unpublished survey of the perceptions of 320 Michigan employers of the state's Vocational Rehabilitation agency, Michigan Rehabilitation Services (MRS), that was conducted by Lewis (1988). A replication study is provided here of 292 employers and business advisors of the state's six Projects With Industry programs.

Chapter IV is divided into two sections. Section I presents the descriptive research findings from the national data bases. This section of the findings summarizes and analyzes the data obtained from the Rehabilitation Services Administration, the Census Bureau's current population survey, and various state vocational rehabilitation agencies and PWI programs.

Chapter IV, Section II, provides a state-level analysis of the state agency, Michigan Rehabilitation Services (MRS) and Projects With Industry (PWI) programs, including an analysis of changes in placement rates at a vocational rehabilitation center before, during, and after the introduction of a PWI program. This chapter also compares possible differences in employer's expectations and perceptions of the performance of both programs as marketing entities. Using a multiple regression analysis, it also examines the relationships among employer's expectations and program performance ratings, and those employers' levels of satisfaction with the programs. Also explored here is the rationale for involvement by business volunteers in the rehabilitation programs of Michigan Projects With Industry programs.

Chapter V presents the conclusions and recommendations of the study. It also discusses limitations of the research and implications for further study.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The literature relevant to this study traces the historical development and attitudes toward public-private partnerships in providing employment marketing assistance for a nation's citizens with disabling conditions. It examines this development from the primitive origins of government, in which the private and the public sector were considered to be one, to the various current administrative philosophies.

It also traces the public's social attitudes from a time when disability was considered to be a demonic manifestation to the current "kinder and gentler" state of the nation. This study examines the development of the federal programs for competitive employment of persons with disabling conditions which are based on the premise that all people, irrespective of disability, should, and are entitled to, work. This study emphasizes the conceptual foundations of corporate social responsibility towards workers with disabilities, the foundations of the state/federal Vocational Rehabilitation program, theoretical basis for Projects With Industry (PWI), and the competitive marketing of workers with disabilities as a public sector concept. In addition, it looks within an historical context at conflicting social principles of beneficence and autonomy in United

States public policy on disability. This chapter also presents the historical, programmatic, and evaluative dimensions of private/public partnerships, the basic state/federal Vocational Rehabilitation programs, and the federal PWI program. It concludes with a review of literature related to public sector marketing for public sector programs, including Vocational Rehabilitation.

An Historical View

An Historical View of the Public-Private Relationship

In the early city-state, government and business management were one. . . . At Ur, such business was undertaken within the sacred area. Sacrifices and offerings in kind were the early equivalent of taxation. The temple scribe issued receipts for these items and listed them on clay tablets. (Gladden, 1972, p. 26)

A review of business history reveals that people have always expected management to fulfill some obligation to society. From ancient Greek times until the Industrial Revolution, Western society imposed strict controls on business. Today's corporate responsibility movement is an attempt to restore a 2,000-year-old Western tradition (Eberstadt, 1973, p. 17).

In classical Greece the businessman's rung on the social ladder was only slightly higher than the slave's. Economic activity was divided into household management, which was encouraged, and moneymaking, which was disapproved of (Carroll, 1981, p. 10). Aristotle (cited in MacIntyre, 1981) wrote: "In the best governed community . . . the citizen may not lead either the life of craftsmen or traders, for such life is devoid of nobility and hostile to

the perfection of character" (p. 66). Plato (cited in Gladden, 1972) recommended the prohibition of moneylending and moneymaking because of their tendency to set the professional's interests in opposition to the community's. According to Eberstadt (1973):

Ostracism was not an unthinkable punishment for immoral business practices, and corporal punishment was frequently the penalty for fraud. Social pressure, however, rather than threat of punishment, seems to have directed the businessman. (p. 18)

In the Medieval Period from 1000 to 1500 A.D. the Catholic Church distrusted both the businessman and the business system. It branded the profit motive anti-Christian and adopted a policy toward business expressed by the motto, Homo mercator vit aut numquam Deo placere potest--the merchant seldom, or never, pleases God. "The businessman was expected to be scrupulously honest. . . . For the medieval merchant," according to Eberstadt (1973), "the contract carried moral as well as legal obligation" (p. 77). In many corporations, God was a major partner, and at the end of each year His profits were distributed among the poor. Saint Thomas Aquinas wrote in the 13th century that business could actually be justified so long as it was used "for a definite purpose, namely, the good estate of the household [i.e., of the community]" (Mitchell & Deak, 1981, p. 138).

Most guilds supported their sick members and provided for their dead members' dependents; some even established unemployment funds. Many guilds voluntarily sponsored municipal improvements (Carroll, 1981, p. 19). According to historian Walton (cited in Eberstadt, 1973), "helping to educate the poor, encouraging local

artists, building hospitals and orphanages . . . all came to be common practice" (p. 19). Gawthrop (1987), a leading public administration scholar, provided this ethical context in which to view the Middle Ages:

Whatever else may be said of the Middle Ages, they did present the Western world with a preface to modern democratic theory. . . . In ideal form the notion of citizenship, and its attendant ethics of civility, was portrayed in a theological motif: Rights and privileges were balanced by obligations and responsibilities, and bound together by such values as honor, loyalty, courage, and forthrightness--all directed and dedicated to the service of God's mankind. (p. 101)

As the Church atrophied, Catholic dogma gave way to Calvinist doctrine, which glorified the thrifty and industrious businessman. Historian Tawney (cited in Reisman, 1982) has said that:

Calvinism assured merchants and industrialists that "the forces of the universe" were on their side, taught them to feel they were a chosen people, made them conscious of their great destiny in the Providential plan and resolute to realize it. (p. 11)

The emerging nation-states, which jockeyed for the position of international power the papacy had left vacant, realized that their national strength depended on their commercial and industrial production. According to England's "harmony of interests" theory, "business was to act in the national interest because the state supported it" (Eberstadt, 1973, p. 20). A number of companies were established solely to employ the poor in impoverished communities and underdeveloped industries:

Businesses which provided outstanding public service were given special privileges. These businesses, like the Virginia Company and the East India Company, were called corporations, and were granted limited liability and legal personality forever. Some corporations earned their

charters by pursuing national interests abroad, others by attempting to alleviate domestic social problems. A complete absence of graft leaves no room for suspecting their [the corporation members'] honesty . . . [this was mercantilism] in its most ambitious form . . . representing the nearest approach to national planning ever made in England. (Eberstadt, 1973, p. 20)

Social Responsibility in a Commercial Republic

In a critique of the "economization model of public policy making," Chandler (1987) said that:

There can be little doubt that the founders of the United States of America intended the new nation to be a commercial republic in which civic virtue would consist of the balanced interests of all. . . . The current debate about markets and public policy is but another manifestation of an argument the founders never settled, and that is how to define the proper role of government in the commercial republic. (p. 279)

The Industrial Revolution which swept through America in the 19th century carried with it new attitudes toward business and the businessman. The commercial leaders of the new republic collectively defined a new governmental marketplace that emphasized an ethics of having and doing over an ethics of being. Social Darwinists and laissez-faire economists rejected the proposition that business was responsible for the state's social welfare. Spencer (cited in Carroll, 1981), a leading Social Darwinist, argued "that society's only obligation to the lazy, sick, and intemperate was to prevent them from procreating, so that the human species might become stronger" (p. 16). He also said that the role of government should be to encourage the growth of unregulated business. The giant corporation came to dominate the economy. Some corporations

virtually had the power of governments. Many captains of industry held their fellow citizens and their government in contempt. The infamous remark, "The public be damned," was attributed to William Vanderbilt. President Calvin Coolidge (cited in Carroll, 1981), who signed the first federal/state Vocational Rehabilitation Act, exemplified this attitude toward industry: "The business of America is business. . . . The man who builds a factory, builds a temple" (p. 20).

According to Eberstadt (1973), "business might never have turned back toward responsibility and accountability if the culmination of corporate irresponsibility had not been the collapse [in the 1930s] of the economic system" (p. 22).

However, there are those who claim that the majority of corporate executives still believe in the profit maximization philosophy and the absoluteness of the prerogatives of management in operating the business organization as they perceive it (Friedman, 1962; Moore, 1950; C. Reich, 1970). Friedman (1962) explained that the only responsibility of business is:

to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition, without deception or fraud. . . . Few trends could so thoroughly undermine the very foundation of our free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their stockholders as possible. (p. 133)

Lindblom (1977) argued that business "does not fit . . . into democratic theory and vision" (p. 356) and in The Greening of America, C. Reich (1970) claimed that the Corporate State is at war

with its own inhabitants:

American society has been amalgamated into a single monolith of power--the corporate state--which includes both the private and public structures. This monolith is not responsible to democratic or even executive control. The Corporate State is mindless and irrational. It rolls along with a momentum of its own, producing a society that is ever more at war with its own inhabitants. (p. 1)

However, Hay and Gray (1974) claimed that the social responsibilities of business managers have gone through three historical phases: the profit maximizer style, the trustee style, and the quality of life style.

The first style was the belief articulated by Adam Smith (cited in Hay & Gray, 1974) in the Wealth of Nations that the business manager had but one single objective--to maximize profits. The only constraint on this pursuit was the legal framework within which the firm operated. Thus, "each individual business man acting in his own selfish interest would be guided by an 'invisible hand' to promote the public good (Hay & Gray, 1974, p. 8). In the United States this view was widely accepted throughout the 19th century and the early part of the 20th century. Its acceptance rested not solely on economic logic, but also on the goals and values of society.

The second phase of trusteeship emerged in the 1920s and 1930s. It resulted from structural changes both in business and in society. According to this concept, corporate managers were responsible not simply for maximizing stockholder wealth but also for maintaining an equitable balance among the competing claims of customers, employees, suppliers, creditors, and the community, as well

as the stockholders. From this perspective, the manager was seen as a trustee for the various contributor groups rather than merely an agent of the owners. Rockefeller (1964) stated this idea clearly when he said, "corporations have developed a sensitive awareness of their responsibility for maintaining an equitable balance among the claims of stockholders, employees, customers, and the public at large" (p. 23).

A linkage between the concepts of the quality of life and social responsibility has become popular in recent years. Concomitant with the new priorities society seems to be demanding that business with its technological and managerial skills and its financial resources assume broader responsibilities. These responsibilities extend beyond the traditional economic realm defined by Adam Smith or the mere balancing of the competing demands of sundry contributors and pressure groups.

An Historical Overview of Rehabilitation and Disability

The progress of the world's people with disabilities from primitive times is due to improved social attitudes, technology, and the economy of the world's nations (Rubin & Roessler, 1987). The history of people with disabilities is a study of the treatment of persons who deviate in appearance, physical functioning, intellectual functioning, and/or behavior (Rubin & Roessler, 1987). Wright (1980) claimed that they have "moved first to the right to survival, then to the right to dependency, and finally to the right to independence," but as Wright added, "the transitional stages have been

terribly slow and are still not complete in even the wealthiest and most advanced nations" (p. 121).

The history of vocational rehabilitation is the history of a long struggle to establish dignity and opportunity as a right of disabled persons, just as history in general is the story of the long struggle to establish dignity and opportunity as a right of every human being (Obermann, 1965, p. 53)

The general lot of persons with disabilities in past eras, when viewed by contemporary standards, has not been easy. But at least, according to Wright (1980), in primitive society, the treatment and role assignments of such persons appear to have been prescribed by defensible logic and necessity. Such cannot always be said for today's attitudes and practices. In primitive tribes such persons were often rejected and eliminated out of the necessity for protecting the village or tribe. When society depends upon hunting and primitive agriculture to survive, physical capability is rewarded and physical dependency is eliminated.

The greatest source of both inspiration and information in Western civilization has perhaps been the Judeo-Christian Bible (Wright, 1980). As a blueprint for the development of attitudes and behavior, with varying degrees of specificity, the Bible has provided many references to disability. References to both aversion and compassion towards disabling conditions may be found in its various books. Speaking through Moses, the Lord set certain standards for priests:

For whatsoever man he be that hath a blemish, he shall not approach (to offer the bread of his God): a blind man, or a lame, or he that hath a flat nose, or any thing superfluous, or a man who brokenfooted or brokenhanded, or

crookbackt or a dwarf, or that hath a blemish in his eye . . . he hath a blemish; he shall not come nigh to offer the bread of his God. (Leviticus XXI, 18-21)

But compassion is urged for persons with disabling conditions in the Book of Deuteronomy: "cursed be he that maketh the blind to wander out of the way" (Deuteronomy XXVII, 18).

The Spartans systematically eliminated deformed and disabled children, not because of any religious sentiments but as a rational procedure for upgrading the race. According to Obermann (1965):

Ancient doctors had to explain disease and physiological disorders in terms of evil spirits and cures had to be offered in terms of exorcism and magic. . . . Thus the disadvantaged individual not only felt the frustrations resulting from lack of capability, he suffered social ostracism and personal feelings of unworthiness as well. (p. 54)

Choisser (1987) argued that a turning point in the treatment of orthopedic disabilities occurred during the reign of Elizabeth I of England. "At that time, institutions for the orthopedic disabled were established that, while acceptable in spirit, were cruel and unjust in their actual treatment of human beings" (p. 17). A U.S. Public Health Service publication provides this account of the inhumane treatment to which persons with mental disabilities were subjected:

The earliest asylums for the insane appeared in Europe in the late 16th century. Typical of these was Bethlehem Hospital in London, which came to be known as "Bedlam." It was notorious for its deplorable conditions and practices. Violent patients were exhibited to the public for an admission fee while the harmless were sent into the streets to beg. Stripped of all human dignity, the patients were subjected to beatings, chains, and other means of physical force. The more fortunate were given antidotes of such materials as crabs' eye, frogs' spawn, dog lice, human perspiration and saliva, earthworms, and

vipers' flesh. Their quarters were unspeakable. (U.S. Department of Health, Education and Welfare, 1965)

As the Judeo-Christian ethic developed over the centuries, it became evident that the dominant view was one of charity and compassion toward individuals in need (Cottone & Emener, 1988). Charity became a device of the Roman Church in the early Christian era, and all through the Middle Ages it was useful in the purchase of salvation. Outside of the Roman Church, other support for charity could be found:

The Jews saw charity as an essential in the mutual support they so often needed. Among them, charity was of many kinds and levels of laudability, depending on the conditions and attitudes related to practicing it. It might be said that vocational rehabilitation was placed at the highest level by Maimonides (1135-1204); helping an unfortunate person in such a manner that he would not need help again, for example giving him employment or helping him to find employment, was listed as the highest order of charity. (Obermann, 1965, p. 88)

In reaction to the inhuman treatment of patient care, humanists such as Voltaire, Rousseau, Locke, Paine, and Jefferson called for the right to live with dignity. Marx and Dickens were searing the consciences of community leaders by exposing the appalling conditions of children caught in the mines and factories of the rising Industrial Revolution in "conditions that fostered crippling in a system that could not accommodate those who were crippled" (Obermann, 1965, p. 60). These conditions ultimately aroused the concern of sensitive people in the Western world and led to various laws designed to correct these abuses (Garret, 1969). There is a clear correspondence between Judeo-Christian ideals and the philosophy in vocational rehabilitation. In the rehabilitation

professions, "many practitioners devote their lives to serving those in need for very little personal gain" (Cottone, 1988, p. 22). Rubin and Roessler (1987) described the "Social Gospel" movement of the late 19th century, "as compatible with improved attitudes regarding society's responsibility for the rehabilitation of persons with disabilities" (p. 17). Proponents of the Social Gospel movement viewed the role of a Christian as that of social reformer against the backdrop of Spencer's emphasis on social Darwinism's survival of the fittest.

Disability in a Commercial Republic

It was from Europe, especially England, that early America "borrowed many of the ideas and practices followed in the colonies and newly organized states" (Obermann, 1965, p. 75). In the early colonies, like England, witchcraft and demonology were established phenomena. Any deviation from the norm, either in physique or behavior, was viewed with suspicion. According to Deutsch (1937):

Neither the cultural nor material conditions of early colonial America offered fertile ground for the introduction and development of a liberal, well-integrated system of social welfare that would include special provision for persons handicapped by physical, mental and economic ills. The settlements were generally sparse and scattered, populated by impecunious people who lived on the ragged edge of existence, engaged in constant struggle to wrench a bare living from the soil. In these circumstances, they were too likely to be burdened with their own immediate problems of existence to give much thought to the welfare of their more needy neighbors. (p. 44)

There were few examples of understanding and empathy for persons with disabilities in the early American colony. The energies

of colonial Americans were primarily devoted to survival (Rubin & Roessler, 1987). Notable exceptions included Roger Williams, who urged "publike acts of mercy" (E. Field, 1902); Thomas Hancock (1764), who bequeathed 600 pounds for the care of the mentally ill; and Benjamin Franklin and the Quakers (1752), who established the first hospital. Work was considered an important aspect of rehabilitation and treatment by the hospital's director, Dr. Benjamin Rush (Thomas, 1985).

During the 1800s, private schools that provided both academic and vocational education for disabled children were founded in most major American cities. This was also an age that marked the beginning of voluntary charitable organizations in America. These organizations included family service societies and some of the major charitable organizations such as the Red Cross and the Tuberculosis Association. Most of these organizations have an early history of support for vocational rehabilitation activities (Obermann, 1965).

The early 1900s brought the creation of large charitable foundations and the Easter Seal Society. Private and religiously motivated morality also resulted in the creation of such significant rehabilitation institutions as Goodwill Industries and the Jewish Vocational Services. According to Thomas (1985), all of these foundations, societies, and agencies would have been created with or without federal vocational rehabilitation legislation such as the Smith-Fess Act in 1920.

The origins of the vocational rehabilitation movement can thus be found in the social movements at the turn of the century. Some

of the social forces between 1890 and 1920 that led to the development of the state/federal Vocational Rehabilitation program included tremendous advances in medical science, psychology, and social work; new federal health programs, such as Public Health and Worker Compensation; free and compulsory education laws; and the establishment of vocational guidance programs. According to Cull and Hardy (1973), the greatest impact on vocational rehabilitation was provided in 1908 by Boston social worker Frank Parsons, who organized the first vocational guidance program in America.

World War I provided a chance for increased emphasis on Parson's (1909) vocational guidance theory of "choosing the right man for the right job" (p. 165). Better selection criteria emerged with the development of the first intelligence and aptitude tests for the Army.

Federal legislation that led to passage of the Smith-Fess Act for Vocational Rehabilitation included the National Defense Act of 1916, which provided active service soldiers with vocational education training, and the Smith-Hughes Act of 1917, which created the Federal Board for Vocational Education. In 1918, this board was authorized by Congress to operate a program of vocational rehabilitation for veterans under the Smith-Sears Veterans' Rehabilitation Act of 1918 (Cull & Hardy, 1973). This act, which was also known as the Soldier Rehabilitation Act, provided the first definition for state/federal vocational rehabilitation services, "an act to provide for the vocational rehabilitation and return to employment of disabled persons discharged from the military or naval forces of the

United States" (U.S. Statutes at Large, 1918). The same political forces pushed for civilian vocational rehabilitation with the enactment of the Smith-Fess Vocational Rehabilitation Act of 1920. In September 1918, Representative William B. Bankhead of Alabama introduced the vocational rehabilitation bill in the House, and Senator Hoke Smith of Georgia introduced a similar bill in the Senate. These bills provided that:

Federal grants would be made to encourage and assist the states in setting up vocational rehabilitation programs for civilians "disabled in industry or otherwise." The Federal funds were to be distributed among the states according to population. This money would come to a state only if its legislature accepted its grant and provided a program of vocational rehabilitation in accordance with the Federal law and regulations. This state program had to be submitted to and be approved by the Federal Board for Vocational Education. The state board for vocational education was the agency designated to administer the program in the state and to cooperate with the Federal Board. It was required that the state must spend in its program an added amount at least equal to its Federal grant. It was not required that this be state money; contributions from private sources could be used. (Obermann, 1965, p. 217)

The concept of a public-private sector partnership was considered in the enabling vocational rehabilitation legislation. The House of Representatives failed to act upon the bill until it was reintroduced in 1919 by Representative Simeon Fess of Ohio. Section 2 of the Smith-Fess Act (P.L. 236) also provided the accepted legislative intent in the definitions of disability and rehabilitation. It states:

that for the purpose of the act the term "persons disabled" shall be construed to mean any person who, by reason of a physical defect or infirmity, whether congenital or acquired by accident, injury, or disease is, or may be

expected to be, totally or partially incapacitated for remunerative occupation; the term "rehabilitation" shall be construed to mean the rendering of a person disabled fit to engage in a remunerative occupation. (U.S. Statutes at Large, 1920, p. 735)

Thus, the rehabilitation of persons with physical disability to "engage in a remunerative occupation" is clearly the original legislative intent of the Congress. Within an 18-month period, 34 states had passed the enabling legislation (Obermann, 1965, p. 217).

This was a time of conservative political philosophy, culminating with the election of President Warren G. Harding. It is a philosophy that is largely compatible with the goals and ideals of rehabilitation. It is resonant with the Protestant work ethic and Calvinist social determinism as opposed to the social charity/welfare movement that was to follow in the 1930s. Classical conservative philosophy embraces the concept of equality of opportunity, advocates the idea that each rugged individual has the right to fully develop his or her natural talents, values independence and self-reliance, and supports the social value of work and the idea that work has a positive impact on the individual (Kirk, 1972; Rubin & Roessler, 1987). Besides being in tune with a rehabilitation philosophy, conservatives are more likely than others on the political spectrum to be impressed with a program's success in helping unemployed individuals find competitive, long-term employment.

The increase in the New Deal programs of the 1930s and the rehabilitation needs of the disabled veterans during the 1940s provided the fertilization for growth, federalization, and movement away from the conservative's emphasis on a work program. The Social

Security Act of 1935 provided permanent authority for the vocational rehabilitation program in law and raised the ceiling on the federal appropriation to nearly \$2 million--more than double what it had been (U.S. Department of Health, Education, and Welfare, 1970).

President Dwight D. Eisenhower signed into law the 1954 amendments which changed the public program from a single grant to a multi-program approach to disability and rehabilitation. In addition to the basic program of grants to states, there would be a separate system of grants for research in rehabilitation, for training rehabilitation personnel, for helping the states to extend and improve their programs of service, and for projects to help both public and private organizations expand their rehabilitation services (Choisser, 1987). The 1965 Amendments to the Rehabilitation Act, signed into effect by President Lyndon Johnson, provided a long list of other improvements for the rehabilitation program, and for the first time Social Security trust funds could be used to pay the costs of rehabilitating disabled workers covered under the system (U.S. Department of Health, Education, and Welfare, 1970).

President Richard Nixon signed the Rehabilitation Act of 1973 into law, which covers the operation of the current state/federal program. This law contains five separate titles. Title I of the act authorizes appropriations for grants to the states for basic vocational rehabilitation services. Title II provides federal funds for research of the disabled under Section 202, and for training of professional rehabilitation staff under Section 203. Title III authorizes grants for rehabilitation facilities under Section 301

and Section 302. Special projects and demonstrations are funded under Section 304. This section included the original Projects With Industry program authority. PWI's authority was expanded under Title VI in 1978. Title IV covers administration and project evaluation. Title V created an Architectural and Transportation Barriers Compliance Board to study transportation and housing needs of disabled people, required affirmative action programs for employment of disabled individuals by government contractors, prohibited discrimination against disabled individuals by any program for employment of disabled individuals by government contractors and prohibited discrimination against disabled people by any program receiving federal financial assistance.

The state/federal Vocational Rehabilitation (VR) program has experienced much of its rapid growth since the mid-1960s. In Fiscal Year 1965 under the basic grant program, 441,000 cases were served and 135,000 successfully rehabilitated. By 1975 the annual caseload grew to 1,143,000, including 306,000 rehabilitated; outlays increased more than fivefold, to \$868 million. The federal government contributed the lion's share in the partnership, accounting for 77% of the funds in Fiscal Year (FY) 1975 compared with 62% a decade earlier (Levitan & Taggart, 1977). The 1978 amendment to the 1973 act limited the growth of the annual VR appropriation to the inflation level, thus according to Rubin & Rubin (1988), eliminating any real growth in the program through 1982, and reflecting some congressional doubts about VR effectiveness. In 1987 over 970,000 rehabilitated cases were reported. The state/federal program budget

for FY 1989 was \$1.43 billion. Galvin (1985) claimed that overall our health and disability programs have experienced more than a 500% increase in the last 10 years. In spite of this rapid growth, the change has been evolutionary. The basic legislative intent has remained the same, competitive employment for citizens with disabilities.

According to Nadolsky (1985), "the growth of the rehabilitation movement over the past four decades closely corresponds to the evolution of the United States into a service society" (p. 7). Although Vocational Rehabilitation was a product of the Industrial Revolution, its growth and prominence can be linked to the development of a service society. The goal of employment for disabled workers is more in line with the work requirements of a service society. In marketing terms, there is a better product mix in a service society than in a manufacturing society; therefore, greater growth in sales can be achieved.

Levitan and Taggart (1977) attributed the growth of rehabilitation over the last two decades as "the proliferation and expansion of separate and uncoordinated programs, rather than as a result of an overall rehabilitation strategy" (p. 27). Besides the veterans' program, Social Security rehabilitation efforts were added in 1965, disadvantaged employment and training programs were launched in the 1960s, and blind and public assistance beneficiaries in 1972. Changes in Worker Compensation legislation also added to the roles performed by rehabilitation programming. Advances in medical science, changing older worker demographics (Bowe, 1983), increased

the numbers needing rehabilitation services. A National Council on the Handicapped Report (1966) stated that there are 45 separate federal programs in which policies are operating on behalf of people with disabilities. Each of these programs is guided by unique as well as shared policies.

However, "there are important differences between conservative supporters of Vocational Rehabilitation and how many rehabilitation professionals view the role of government (particularly the federal government) in promoting the general welfare" (Thomas, 1985, p. 18). The conservative's preference is for local, state, and/or private delivery systems, while rehabilitation professionals often call for greater federal bureaucratic involvement. As the "Golden Era of Rehabilitation" has waned, there is now competition with many other governmental programs for diminishing resources. Like the blacks and women since the 1960s, disabled people today are no longer willing to accept second class citizenship (Rubin & Roessler, 1987). Hahn (1985) claimed that:

To the extent that people with various types of disabilities can begin to realize that their problems stem from prejudice and discrimination rather than from functional limitations, they may develop a sense of cohesion that could provide the foundation for a powerful and growing political movement. (p. 59)

Rubin and Millard (1991) claimed that American public policy on disability has been shaped by three ethical principles: beneficence, autonomy, and justice. The imbalance between the cash payments made to compensate individuals for their disabilities estimated by Rogers (1987) at \$70 billion and the \$2 billion spent

on vocational rehabilitation suggests that "persons with disabilities are paternalistically perceived as a population of 'deserving poor' with minimal capacity for self-support and independence" (Rubin & Millard, 1991, p. 14).

Understanding the Differences

"Government is different from business," argued Appleby (1978), "by reason of the breadth of the scope and impact of its decisions, the fact of its public accountability, and its fundamentally political rather than rational character" (p. 105). In an article entitled "The Commercial Republic Reexamined," Chandler (1987) also discussed the differences as follows:

1. The private sector is profit-oriented, while the public is not. (p. 580)
2. The private sector is competitive, while government in most instances operates as a monopoly. (p. 581)
3. The public sector is labor intensive, while the private sector is not. (p. 581)
4. Society expects more of government workers than it does of private workers. (p. 582)
5. Managers in the private sector typically have greater freedom in personnel matters than public managers. (p. 583)
6. Authority is more structured in the private sector than the public sector. (p. 584)
7. The executive branch of government is led by amateurs and politicians with short tenure, while the private sector tends to have more experienced executives at the top. (p. 585)
8. Personnel in the private sector tend to have a single purpose to serve, while public sector employees typically serve multiple purposes. (p. 586)

Much of the literature addressing differences between the private and public sectors falls into four separate areas: organization theory, management, bureaucracy, and organizational mortality. Each of these topics reflects a different perspective.

The organization theory literature generally addresses global issues of behavioral psychology (Maslow, 1943; McGregor, 1960; Simon, 1955). In this literature, there has been an evolution from a very simple, mechanical view of the organization typified by Taylor (1923) in the private sector to the more complex contingency theory of Thompson (1961). Under contingency theory management style will vary among organizations, even though people are all cast from the same behavioral model.

It is usually assumed in the management literature that private sector management is more effective than public sector management. Eby (1982) provided these reasons for effectiveness differences:

Foggy goals in non-market organizations with the profit goal in market organizations; relatively low executive pay in non-market organizations; tenure policies in non-market organizations; and professionalization in the non-market organizations. (p. 69)

M. D. Cohen and March (1974) thought that public sector management can be improved only if it stops trying to imitate private sector management. Eby (1982) referred to universities as "organized anarchy" and said of a university:

It does not know what it is doing; its goals are either vague or in dispute. Its technology is familiar but not understood. Its major participants wander in and out of the organization. . . . [It] has a leader with a purpose . . . [that] operates within an organization that is without one and they advise that leader to assume it is unprofitable to define objectives. (Eby, 1982, p. 75)

Eby (1982) thus concluded that organizational performance depends on both management competence and the difficulty of the management task. If management is more difficult in the public sector, then equally competent management will perform better in the private sector.

The bureaucracy literature tends to focus on organizational behavior within the context of government agencies. Weber (cited in Giddens, 1971) provided the baseline from which other views have evolved. Many writers have commented on the shortcomings of bureaucracy (Bennis, 1970; Rose, 1984). Cyert (1975) thought that well-managed public sector organizations tend to be centralized, but Bernstein (1978) argued that centralization is an abnormal reaction of bureaucracies to increasing environmental uncertainty.

Waldo's (cited in Chandler, 1982) discussion of public-private morality also helps to provide a contrast between the public and private sectors:

Morality in public office is not just a matter of obeying the law, being honest, and telling the truth. It concerns decisions made and action taken toward the good of a collectivity, which we call "the public." A decision or action justified as moral because it is judged to be in the interest of the public may be immoral for individuals, however. When killing is done by an individual it may be the crime of homicide. When done in warfare or law enforcement on behalf of the public it is an act of duty and honor, and perhaps of heroism. (p. 36)

There may be differences between the private and public sectors, but why should those differences prevent the establishment of authentic human relationships which can work together on the complex problems facing society today? "In the organic compounds of these

relationships there are diamonds uncut by commerce and more valuable than the gold of efficiency," claimed Chandler (1982, p. 297). Recognition that each sector brings its collective strengths and needs to the relationship is the first step toward a cooperative partnership. Only in her partnership with the Tin Man, Straw Man, and the Cowardly Lion was Dorothy able to defeat the "wicked problems" (Harmon & Mayer, 1986) of the wicked witch of the West. The problems of our world have become too complex for an individual hero to come forth and lead us out of the wilderness. R. B. Reich (1987) claimed that "in order to survive we need a new spirit of collective entrepreneurialism" (p. 252). He put forth the proposition that:

The challenge is to create settings in which obligation and trust can take root, supported by stories that focus our attention on discovering possibilities for joint gain and avoiding the likelihood of mutual loss--stories of the ecology of the world economy, of collective entrepreneurialism, of social solidarity, and of stewardship. (p. 252)

Cooperation and coordination between the public and private sectors are terms heard with increasing frequency (Levine, 1984; Redburn & Young, 1984; Rochlin, 1988a).

Projects With Industry Program

Projects With Industry (PWI) is administered by the Rehabilitation Services Administration under the U.S. Department of Education as authorized by Section 621 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 795[g]). The law states:

The Secretary is authorized to make contracts or jointly financed cooperative arrangements with employers and organizations for the establishment of projects designed to prepare disabled individuals for gainful and suitable employment in the competitive labor market. Under these contracts, handicapped individuals are provided training and employment in a realistic work setting and are provided such other services as may be necessary for such employment. (Title VI, Employment Opportunities for the Handicapped, Section 611[b][1] of the Rehabilitation Act as amended)

As stated, the legislative intent is thus to "prepare disabled individuals for gainful and suitable [competitive] employment." As with the state/federal vocational rehabilitation legislation, the primary goal is competitive employment for persons with disabilities; however, under PWI direct partnerships with employers are directed as the implementation vehicles rather than direct partnerships with the state vocational rehabilitation agencies. With PWI, the state vocational rehabilitation agencies provide assistance and support, select disabled individuals on the basis of their potential, and help them to fill job openings and receive training for upward mobility in the employer's establishment (Choisser, 1987).

The PWI approach stems from a conservative philosophy which has prompted much of the federal employment legislation in the past several years, including the Job Training Partnership Act (JTPA) of 1982. Private industry councils, which govern local JTPA operations, are a direct adaptation of the PWI advisory council concept (Devins, 1984). That philosophy maintains that the problem of unemployment in this country can be resolved only through this joint involvement of the public and private sectors. According to the first Rehabilitation Services Administration's (RSA's) PWI grants

officer, Fleming (cited in "Study Shows Major Role," 1986): "PWI became the official program of the [Reagan] White House in this country. The whole partnership principle was an outgrowth of PWI philosophy. I worked with Senators [now Vice President] Quayle and Kennedy in developing JTPA" (p. 1).

Testifying before a March 17, 1988, Congressional Oversight Committee, Veller, Director of the Vermont PWI, said:

The PWI program has been responsible for at least 125,000 placements during its twenty years of existence and that, assuming a conservative average wage rate of \$10,000 per year, these placements bring wages of at least \$1.25 billion annually. A 20% tax rate suggests the payment of at least a quarter million dollars each year as taxes. And all of this is from a program currently funded at only \$17,000,000 yearly. (p. 1)

Former RSA Commissioner Conn (1985) reported at a meeting of the President's Committee for the Employment of the Handicapped that "Projects With Industry has become the most successful rehabilitation model ever used." Follow-up studies (Boswell, 1984) have confirmed that placement rates are higher and the cost per placement lower for PWI programs when compared to the traditional state/federal approach. Bitter (1979) cited PWI programs that have job placement rates of 75% for all clients served as compared with a 62% rate for the traditional state/federal programs operated primarily within the public sector. Even while they are serving some of the same clients, PWI appears to offer a more efficient approach for the competitive placement into the labor force of persons with disabling conditions over the traditional state/federal Vocational Rehabilitation program. However, the literature does not reveal an attempt to

compare these two programs. If it is true that PWI is a more effective program, the next question is why?

The Role of Employer Attitudes

In a 1982 study by the U.S. Department of Labor (cited in Schloss & Schloss, 1987), the importance of employer attitudes in promoting the employment of individuals with disabilities in the work force was investigated. The report suggested that employers' attitudes may be the single most important factor influencing the hiring of disabled persons. Success in rehabilitating an individual for employment may rest ultimately on an employer's willingness to hire a worker with a disability.

Willingness to hire is reflected, in varying degrees, by the employer's attitude toward the person with a disability (Emener & McHargue, 1978). What an employer says about hiring practices and what that same employer does when confronted with a decision to make a job offer to a disabled applicant may, unfortunately, be quite different. Studies reported by the Rehabilitation Services Administration (RSA) in Rehab Brief have shown that 60% of employers, when asked, say they would hire disabled workers, but only about one-third actually do so (RSA, 1979).

Research in this area is plagued by the same difficulties that other areas of attitude measurement have encountered. As Campbell, Converse, and Rodgers (1950) reported, "research on social attitudes has been justly criticized for a lack of common definition and for a failure to integrate definition and measurement procedures" (p. 15).

Currently the most widely accepted definition is offered by Campbell et al. "A social attitude is (or is evidenced by) consistency in response to social objects" (p. 15). Kiesler, Collins, and Miller (1969) provided considerable evidence of a strong relationship between pencil and paper self-report measurement techniques and "overt, socially important behavior" (p. 38).

Another issue shaping employer attitudes is federal legislation designed to enforce the hiring of qualified workers with disabilities. Public Law 93-112, the Rehabilitation Act of 1973, is the most significant legislation. Section 503 of this act mandates that all employers holding federal contracts or subcontracts exceeding \$25,000 annually must adopt a policy of affirmative action in hiring qualified job applicants with disabilities. The intent of the law is to insure that employers will take positive measures to recruit, employ, and promote persons with disabilities into jobs that they are capable of performing. For those employers who hold federal contracts or subcontracts in excess of \$50,000 annually and who have 50 or more employees, a written affirmative action policy is required. Approximately 20% of the nation's employers are covered by Section 503 (Rochlin, 1988a). The Federal Contract Compliance Board has the major responsibility for enforcing the implementation of Section 503.

Under Section 504 of the Rehabilitation Act, employers and organizations receiving federal grants or other financial assistance are required to have affirmative action policies which prohibit discrimination in the employment of persons with disabilities. They

must make physical and procedural adjustments to accommodate disabled job applicants, whether or not such applicants are currently present.

The Americans With Disabilities Act (ADA) was signed into law by President Bush on July 26, 1990. This act is described by the American Council on Education (1990) as "the most far-reaching civil rights legislation since the Civil Rights Act of 1964 [and as an] emancipation proclamation for people with disabilities in America" (p. 1). It prohibits discrimination against people with disabilities in the areas of private employment, public accommodations and services, transportation, and telecommunications. It requires employers to make "reasonable accommodations" unless undue hardship can be proved. Thus, the public and private sectors are forced to come together to recognize and act upon the rights of persons with disabilities to equal access to employment under law.

The presence of these laws implies that a substantial number of employers across the nation are required to make special provisions to recruit and hire disabled workers. However, Bowe (1984) analyzed census data to show that a majority of work-aged disabled persons are unemployed. Among the 12.4 million work-disabled persons, 6,401,000 reported a work disability or disabilities so severe that they were prevented from working. This accounts for 52% of all work-disabled persons in the census and 4.4% of all working-age Americans (Bowe, 1984). Therefore, about 6 million disabled persons could work if their skills were marketed more appropriately. A need to more closely examine the disabled workers' marketplace is

apparent.

Pati and Morrison (1982), Devins (1984), and Boswell (1984) suggested that a major contribution of the PWI approach to rehabilitation is its role in eliminating myths and reducing negative employer attitudes toward persons with disabilities. This study of employer response to increased cooperation efforts is designed to enhance our understanding of this process.

The questions, then, to be explored are whether PWI does indeed provide a more successful model for changing employer attitudes and behavior than the traditional state/federal Vocational Rehabilitation model; and, if so, why?

A PWI Model

The emphasis on developing partnerships between private business and industry and the public sector agencies is gaining increased momentum in public sector service delivery.

In a 1973 study on the role of business in urban manpower programs, Kobrak concluded:

If the alliance should prove to be an early stage in a sustained and more sophisticated assumption of public responsibilities, the largely untapped and undeveloped training potential of large corporations is of a magnitude that, if coupled with substantial federal funding, could make a major dent in minority group unemployment and underemployment. (p. 197).

Private sector organizations like International Business Machines (IBM), Pizza Hut, and Marriott are just some of the examples of such alliances under the banner of Projects With Industry. Direct PWI federal incentive grants have greatly facilitated the involvement of

such large corporations with local programs, rather than their friends from the government who are there to help them do their duty. PWI is an example of federalism at work.

Peterson, Rabe, and Wong (1986) in When Federalism Works said:

Federalism has become a buzzword. For some it conjures up images of a compassionate government that protects consumers and gives succor to the needy. For others it symbolizes an uncontrolled bureaucracy that grants special privileges to its chosen clientele and relentlessly writes regulations that stultify creativity and enterprise. If one is either uncritically for federalism or irrevocably against it, one hardly wants to understand how and when it works. (p. 6)

The advent of Projects With Industry (PWI) programs is an example of this new form of federalism with its entrepreneurial partnership orientation. It was introduced into rehabilitation legislation in 1968 (P.L. 90-391) to strengthen and advance vocational rehabilitation efforts to provide competitive vocational placements for disabled persons. The first projects began in 1970 with funding from the Rehabilitation Services Administration of the U.S. Department of Health, Education, and Welfare. Today, there are more than 100 projects with many satellite programs operating across the country. According to McMillion (1983):

The intent of PWI is based in a positive and pro-active rationale which establishes cooperative partnerships between business/industry, rehabilitation, and qualified disabled workers. When organized well, with a strong commitment, it produces a win-win outcome for all participants of the partnership. (p. ix)

Pati and Morrison (1982) found that four basic assumptions underlie this partnership between industry and rehabilitation service agencies:

1. Actual work settings provide the most reliable arena for evaluating the skills and attitudes of potential employees and preparing them for competitive employment.

2. Employers need help in hiring and training handicapped workers.

3. Employers can best identify jobs for handicapped workers, define the qualifications for those jobs and design training programs to enable handicapped applicants to meet those qualifications.

4. Instituting programs to employ the handicapped is in industry's best interest. (p. 2)

On the corporate side of the ledger sheet, Projects With Industry, in concert with vocational rehabilitation, also provides a beneficial legal framework for affirmative action.

The very nature of Projects With Industry implies a partnership between business and rehabilitation. Personnel within this partnership have a wealth of technical information and expertise related to the needs of disabled workers and the legislative regulations dealing with affirmative action. In addition, other legislation, such as tax credits, also has been established to serve as an incentive to employers. The intent and focus of the PWI partnership is to promote private sector involvement in a participant role in preparing and employing disabled workers.

Related Studies on PWI Effectiveness

Pati, Adkins, and Morrison (1981) surveyed in detail five companies ranging in size from 100 to 2,700 people for their book, Managing and Employing the Handicapped: The Untapped Potential. All five companies cited performance and productivity, and four of

the five pointed to availability of suitable jobs, turnover rate, and absenteeism as factors that would influence the hiring of disabled workers. All said that PWI helped them locate qualified people.

In reviewing its employment records over the past 25 years, the duPont deNemours Company (1981) found that the performance of its disabled employees is equivalent to that of their nonimpaired co-workers. In terms of safety, job duties, and attendance, the disabled held their own.

A study by Wesolek (1985) found that there were no differences in attitudes between PWI and non-PWI company managers. However, he also found that a company's commitment to cooperate with a rehabilitation agency in training and employing disabled workers was not communicated to all managers. As Wesolek noted:

It was apparent from some PWI employers that awareness of a company's involvement with a PWI project was not pervasive in the firm. A company's commitment to cooperate with a rehabilitation agency in training and employing disabled workers was not necessarily communicated to all managers. During one interview, a personnel director at a PWI firm indicated that he doubted whether most plant supervisors were aware of their firm's PWI role. (p. 111)

In 1984, Policy Studies Associates (PSA, 1986), under contract with the U.S. Department of Education, conducted an assessment of the Projects With Industry program. It studied the characteristics of current PWI projects and types of projects that were particularly effective in achieving PWI project goals, and in particular, what the relative effectiveness was of projects operated by national trade associations.

The results of this 1984 (PSA, 1986) assessment indicated that PWI projects could be found in a diverse array of organizations, including rehabilitation facilities, educational institutions, social service agencies, corporation, and trade unions. They were located in 27 states and the District of Columbia.

The average weekly gain in income reported by PWI projects for the 8,441 persons with disabilities who obtained competitive employment was \$150 per person. About 66% of these persons were rated by federal definition as severely disabled, had experienced long-term unemployment and associated low incomes, and were not highly educated.

Cost per placement was computed by dividing a project's total PWI grant award by the number of clients placed. This is a standard measurement of fiscal efficiency for both individual and overall program performance. The overall cost per placement of \$1,452 and the lower cost per placement of \$1,128 for the more experienced projects "suggest that the PWI projects are accomplishing their goal of competitive placements in an efficient manner" (PSA, 1986, p. 134).

According to Harles (1991), executive director of the International Association of Business, Industry and Rehabilitation:

For a Federal expenditure of 15.75 million, the Federal government will get back or save over \$54 million in one year (based on 1988 figures). This is \$3.42 for each federal dollar spent on PWI in a year. PWI graduates will continue working for many years and these savings will multiply. (p. 1).

Policy Studies Associates (PSA, 1986) also found the existence of linkages with both the private sector and the state rehabilitation agencies as nearly 5,000 businesspersons and rehabilitation professionals were reported to be donating their time to serve on project advisory committees.

PSA (1986) thus concluded that the legislative intent for the program was fulfilled by PWI, and that PWI employers reported a high level of satisfaction with the projects. It recommended the continuation of assessment of both the individual projects and the overall PWI program. The first recommendation led to the development of PWI indicators in 1986-87, which will serve as the data collection tool for this study.

Related Studies on State/Federal (Section 110) Effectiveness

The state/federal Vocational Rehabilitation program was initiated as a grant-in-aid program by the federal government in 1920 and has survived all of the subsequent social and economic changes. Although the federal government provides 80% (75% in 1990) of the funding for the program, the states maintain broad operational discretion over the specific type of clients admitted and types of services offered.

There were in 1983 over 13 million persons with disabilities in the United States, according to Bowe (1984). In 1988 the state/federal Vocational Rehabilitation program served 918,876; however, only 218,000, about 24%, were reported as rehabilitated and gainfully employed at a cost of \$1.25 billion (Rehabilitation

Services Administration, 1990a).

In a 1965 national study of Vocational Rehabilitation data for 1959 through 1963, Conley, using an 8% discount rate, found that the benefits were between 10 and 12 times the cost. In a 1969 study update, Conley found a ratio again using the 8% discount rate, of 3:1. A study by Levitan and Taggart (1977) estimated a 13.6 to 1 cost/benefit return in 1975. However, Berkowitz (1988) claimed that although the Vocational Rehabilitation program pioneered the use of cost-benefit analysis for a public welfare program, it has not kept pace with changes in evaluation methods. The pre- and post-gains were projected under various assumptions. These differences in assessment methodologies rather than performance may account for the wide range of differences in the benefit-cost studies. As Berkowitz pointed out:

In the 1920s, monitoring and reporting expenditures and results was an exciting and novel idea. But today, although the amount of information made available by the VR program compares favorably with that released by other manpower and service programs, the modeling of the evaluation process remains crude. In estimating benefits, the program has relied on simple comparisons between the economic status of individual clients as they enter the program and as they leave, or on ad hoc modifications of these crucial variables based on limited survey data. Control group comparisons are understandably lacking, but little effort has been made to compensate for their absence. (p. 4)

In preparation for their book on Jobs for the Disabled, Levitan and Taggart (1977) found that in FY 1972 some 300,000 persons with disabilities were placed into competitive employment by Vocational Rehabilitation Services. Yet only one-fourth of the persons receiving VR services believed that they had improved their status in the

Labor market.

The reason for VR's rapid growth, according to Levitan and Taggart (1977), is that it is not subject to the same performance standards as other manpower programs. Hence, the VR program looks better and other programs are forced to retrench. Levitan and Taggart claimed that exacting evaluation standards are needed and that the problems of "creaming" and "control group adequacy" must be squarely faced:

The rehabilitation studies have relied on comparisons of earnings immediately before and after rehabilitation, rather than comparisons of participants to matched samples of disabled nonparticipants over an extended period. Since many of the disabled recover or improve their employment status without services and since those with greater probability of improvement are selected for the program, before and after comparisons exaggerate the impact of rehabilitation efforts. Calculations with and without the use of control groups demonstrate that the differing methods used in assessing vocational rehabilitation and manpower programs have been responsible for the differing performance assessments. It is uncertain whether vocational rehabilitation pays off absolutely or relatively as a human capital investment. (p. 141)

In a 5-year study of 1,500 VR clients in California, Texas, and Virginia, Berkowitz, Dean, Dolan, Hanks, and Portny (1988) found that only 11% of "successful" closed rehabilitation clients were employed continuously throughout the first 4 years of the study and that the average length of employment was 13 months. However, when compared to a disabled non-VR treatment group, they concluded that those receiving VR services experienced a 4- to 6-month longer employment spell and substantially shorter unemployment spells. Translated into economic terms, the Vocational Rehabilitation program increases the average individual's earnings by \$1,600.

Employer Attitudes Towards Persons With Disabilities

Lyth (1973) found that in most companies, motor disabilities of the legs were the hardest to accommodate. Colbert, Kalish, and Chang (1973) examined attitudes expressed by employers toward persons with emotional, mental, visual, alcoholic, drug related, and orthopedic disabilities. They also included prison parolees and welfare recipients in their listing of handicapping conditions. They found that employment acceptance showed a decreasing order on a continuum from ethnic background, physical disability, and prison affiliation to mental instability. Drug addiction also ranked very low in acceptance, and the authors concluded that the possibilities for rehabilitation of individuals addicted to drugs were minimal.

In a 1979 survey of Fortune 500 companies, Mithaug (1979) found that persons with physical disabilities had the most acceptable types of disabilities when it came to employability. As such they stood in sharp contrast to visual, emotional, mental, and hearing problems. Persons with severely mentally retarded handicapping conditions were the least likely to be hired. McConnell (1986) found similar results in a survey of private- and public-sector employers and employment agencies.

Marketing and Rehabilitation

Peters and Waterman (1982), in their best selling book In Search of Excellence: Lessons From America's Best-Run Companies, claimed that successful, innovative organizations often emphasize a

marketing approach. Similarly, "the marketing approach to placement requires some adjustment in the typical rehabilitation professional person's thinking," according to the Institute on Rehabilitation Issues (1983, p. 2).

In other nonprofit areas, however, marketing is well accepted. The evolutionary sequence of product, sales, and marketing orientations in the private sector has also been copied by the public sector. "Before the mid 1970s most government and social service agencies practiced minimal marketing. Seeing no need to sell a worthwhile service, the agencies concentrated on producing the services" (Crompton & Lamb, 1986, p. 3). If a service is not being used, it is common in a product orientation to think that there is something wrong with the people using the service rather than the service itself. However, when resources tightened in the late 1970s, some farsighted agencies aggressively promoted their services to justify increased budgets.

Kotler (1975) defined sales as "a product orientation backed by selling and promoting aimed at generating high sales" (p. 44). According to Young et al. (1986), many rehabilitation professionals view management's pressure to achieve placement goals and quotas as a logical benchmark to a sales orientation.

Now that a selling orientation is common, many public sector agencies have understood the limitations of selling and have advanced to a marketing orientation. Pride and Ferrell (1980) claimed that "marketing consists of individual and organizational activities aimed at facilitating and expediting exchanges without a set of

dynamic environmental forces" (p. 7). Marketing, therefore, involves more than the sale for money of available commodities. The most noted authorities in nonprofit marketing, Kotler and Armstrong (1987) claimed:

The sectors of nonprofit marketing that recognized the potential of marketing at a very early stage, such as health care and higher education, are now at a point where the question is not whether one will use marketing but whether one will use it better than one's competitor or than one has in the past. Nonprofit marketing practitioners now comprise an experienced and sophisticated community. (p. xiii)

Central to the concept of marketing in the profit sector is the attitude, produce what you should sell rather than sell what you can produce. Crompton and Lamb (1986) added that the marketing concept "holds that the social and economic justification for an organization's existence is the satisfaction of customer wants" (p. 3). It is much more efficient to maintain a satisfied customer than to find a new one.

Spann (1983) suggested that rehabilitation research might be enhanced by employing a similar orientation. A market orientation entails closely attending to consumer needs, developing products to satisfy clearly identified needs, carefully evaluating product effectiveness, and actively disseminating products to consumers (Levitt, 1974; Peters & Waterman, 1982). The Institute on Rehabilitation Issues (1982) publication entitled, Marketing: A How To for VR, concluded that: "The marketing approach does not presuppose less concern about the population served by the rehabilitation agency; rather, it puts in more proper perspective the orientation

required to attain the placement objective through a systematic marketing effort" (p. 2). Seekins, Mathews, Fawcett, Jones, and Budde (1988) claimed that a market-oriented strategy is consistent with current human service philosophies and vital to service system improvements. According to the Goodwill Industries of America's How to Organize a PWI Program (Foley, 1985), "a PWI operates as a 'business' whose product is a qualified worker who must then be 'marketed' to an employer 'customer'" (p. 1). A marketing approach in rehabilitation, as modeled by PWI, argued Young et al. (1986), "may lead to higher quality jobs for clients and achieve much more for rehabilitation by establishing long-term relationships with satisfied employers" (p. 37).

Employer Participation in the Rehabilitation Process

Many writers (Boswell, 1984; Devins, 1984; Hadley, 1981; Kaplan & Hammond, 1982; Leneway & Montgomery, 1981) attributed the perceived differences in effectiveness by PWI-related programs to the direct marketing involvement of employers in the rehabilitation process. This involvement often leads to the long-term relationships needed to market clients to satisfied employers. Choisser (1987) claimed that "the PWI program is seen by many business participants not as a rehabilitation program, but as a business process where the product is a trained worker, well prepared to perform the skills and tasks needed by businesses" (p. 36). Foley (1985) provided this perspective on the relationship of a PWI to the employer community:

With the recent increased awareness of the disabled population and its needs on the part of both government and the public, more employment opportunities for qualified, disabled people have become available. The word to emphasize here, of course, is qualified. The function of vocational rehabilitation is to ensure that disabled people become qualified to fill the available jobs, and that these people then receive proper consideration for such jobs. By involving potential employers in the management of the rehabilitation function, the PWI process can accomplish both these objectives. . . . A PWI should be designed to meet the occupational skill requirements of the employers in the geographic area served by the rehabilitation center. (p. 1)

Although Vocational Rehabilitation was a product of the Industrial Revolution, its growth and prominence can be linked to the development of a service society. The goal of employment for disabled workers is more in line with the requirements of such a society. In marketing terms, there is a better product mix in a service than in a manufacturing society; therefore, a greater growth in sales can be achieved. Since, however, there has not always been sufficient meaningful communication between the world of work and that of rehabilitation, the vocational preparation provided by the rehabilitation agency has not always been fully adequate, nor even always of an appropriate nature (Foley, 1985).

The Development of PWI Performance Indicators

The 1984 amendments to the Rehabilitation Act required RSA to:

Develop and publish standards for evaluation consistent with the provisions . . . [see below] to assist each recipient under the Projects With Industry Program receiving assistance under this title to review and evaluate the operation of its project.

(A) the numbers and types of assisted handicapped individuals;

- (B) the types of assistance provided;
- (C) the source of funding;
- (D) the percentage of resources committed to each type of assistance provided;
- (E) the extent to which the employment status and earning power of handicapped individuals changed following assistance;
- (F) the extent of capacity building activities, including collaboration with other organizations, agencies, and institutions; and
- (G) a comparison, when appropriate, of activities in prior years, with activities in the most recent year. (1984 Amendments to the Rehabilitation Act, Section 162[b])

In addition to serving as the basis for a comprehensive national evaluation of PWI programs, the standards were developed "as a basis for RSA's monitoring of individual projects and its decisions on the continuation of federal funding for projects" (Senate Report No. 98-168, 1984).

In developing the standards, Section 162(b) (Amendments to the Rehabilitation Act, 1984) required RSA to obtain several forms of outside review. First, RSA must "obtain and consider recommendations" on the evaluation standards from "State Vocational Rehabilitation Agencies, current Projects With Industry recipients, professional organizations representing industry, organizations representing industry, organizations representing handicapped individuals assisted by Projects With Industry recipients, and labor organizations." The act also required that the proposed standards be approved by the Council on the Handicapped. The National Council approved the standards on January 24, 1985. These standards

(Appendix E) serve as the basis for the design and conduct of data collection for this study. Additional justification for the identification of critical variables is to be found in the related attributes of each of the programs.

Multiattribute Utility Theory

In a 1987 study of the PWI program, Choisser used an analytical procedure known as multiattribute utility theory to identify the relative importance of the various attributes of the PWI program. The methodology for this procedure will be discussed further in the next chapter. Multiattribute utility theory is commonly used by the Defense Department to make decisions on the multiple attributes of various weapons systems. It breaks apart an evaluation of complex systems in such a way that "independent judgments may be made with regard to individual components of the problem and subsequently aggregated to provide an overall judgment using a formal mathematical structure which can be implemented on a computer on an interactive basis" (Choisser, 1987, p. 54). Multiattribute utility theory can be used to estimate the implicit tradeoffs consumers make when they evaluate several attributes together (Green & Wind, 1975).

By analyzing the objectives of the overall PWI as defined by the supporting legislation, Choisser (1987) was able to select the program's attributes and a range of variation for the assignment of weights by a PWI expert panel. The major attributes identified by Choisser include the following PWI program effectiveness measures: (a) educational services to both employer and disabled people,

(b) competitive employment and job quality, (c) benefits to employer in obtaining workers, (d) savings to taxpayers, (e) project management viability, and (f) project cost.

For the most part, these same effectiveness measures can be applied to state/federal Vocational Rehabilitation from which the PWI program was derived. However, due to the lack of meaningful data and the lack of adequate benefit/cost research (Berkowitz, 1988; Dean & Dolan, 1983), economic evaluation issues have been avoided. As Dean and Dolan (1983) pointed out, improvements in program evaluation data are needed in the working histories of clients, accounting of specific services provided by counselors, and clients' functional limitations before meaningful benefit/cost research can be done.

Group Foundation Theory and the PWI Marketing Approach

A critical element of a PWI is the development of an advisory committee which serves as liaison between the rehabilitation program and the employer community. "It is the active involvement of the business community through the Business Advisory Committee (BAC) which distinguishes a PWI program from other rehabilitation training programs" (Foley, 1985, p. 32). Competitive placement is the usual measure of success, and the degree of involvement of the BAC usually determines the degree of competitive placement. This relationship between employer attitude change and group interaction is in accord with group formation theory.

There have, however, been many studies on the dynamics of group formation. In studying the propaganda process, Homans (1950) found that:

The more activities persons share, the more numerous will be their interactions and the stronger will be their sentiments (how much the other persons are liked or disliked); the more interactions among persons, the more will be their shared activities and sentiments; and the more sentiments persons have for one another, the more will be their shared activities and interactions. (pp. 43-44)

The major element is interaction. Scott (1967) said that "persons in a group interact with one another, not in just the physical proximity sense, but also to solve problems, attain goals, facilitate coordination, reduce tension, and achieve a balance" (p. 83). The social forces of an interacting group can be directed so as to achieve strong changes in behavior. Luthans (1985) claimed that "participants in an organization interacting in this manner tend to form into powerful groups" (p. 359).

Group formation theory was further enhanced by Newcomb's (1961) balance theory, which states:

Persons are attracted to one another on the basis of similar attitudes toward commonly relevant objects and goals. Once this relationship is formed, the participants strive to maintain a symmetrical balance between the attraction and the common attitudes. If an imbalance occurs, an attempt is made to restore the balance. If the balance cannot be restored the relationship dissolves. (p. 51)

But, what holds a group together and prevents the centrifugal forces of conflict from pulling the group apart? One explanation is provided by Thibaut and Kelley's (cited in Luthans, 1985) exchange theory which states: "A minimum positive level (rewards greater

than costs) of an outcome must exist in order for attraction or affiliation to take place. Rewards from interactions gratify needs, while costs incur anxiety, frustration, embarrassment, or fatigue" (p. 360).

In a study of citizen advisory committees, Robin and Hannah (1982) found that advisory groups "can be effective means of achieving real citizen participation, if it is the citizens who control the committee rather than officials" (pp. 19-20). Arnstein (1972) developed a typology of citizen empowerment in which the more citizens were in control, the greater their participation and effectiveness in determining the end products of the level of government in which they were involved. Propinquity, interaction, and common attitudes are concepts pertinent to all of these group formation theories. The following PWI marketing model draws on concepts from both the exchange and balance theories of group formation (see Figure 1).

Within the Projects With Industry construct, the private sector would include: individual representatives from business and industry, labor, and consumer groups, including handicapper advocacy groups, and taxpayers. The public sector consists of both tax-supported and private nonprofit organizations. The forum most commonly used within the rehabilitation community by these two sectors is the Business Advisory Committee (BAC). The BACs provide a structured opportunity for PWI partnerships to develop. They technically serve as advisors to the agency administrator, although often in the case of a nonprofit organization, the BAC also acts as an agency

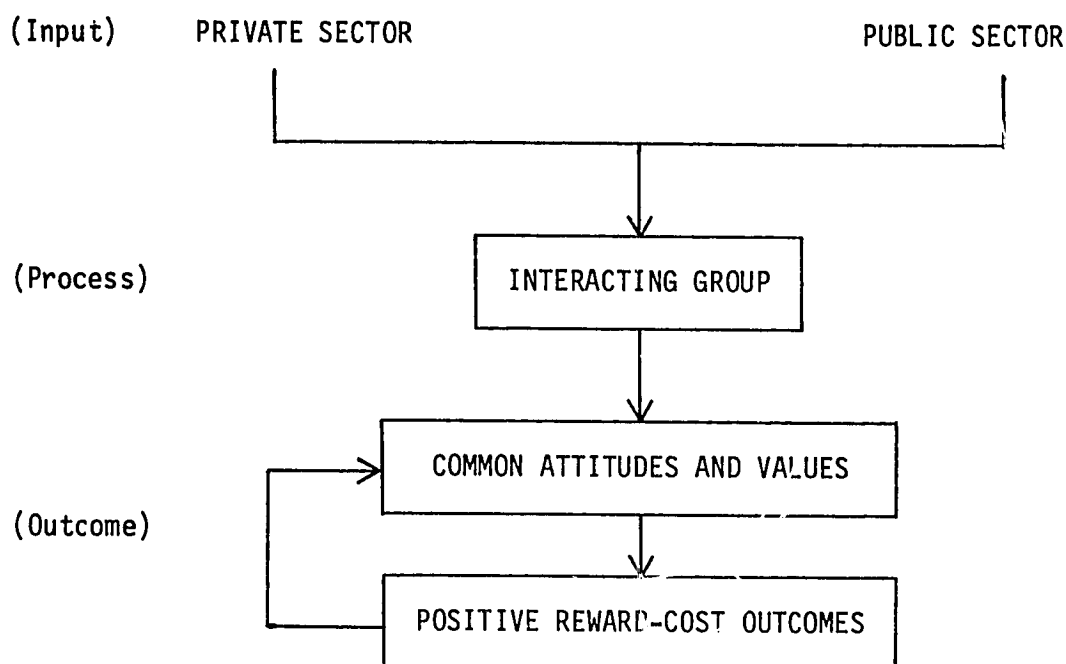


Figure 1. A Projects With Industry Flow Chart.

governing board. According to group formation theory, the propinquity of the represented parties and their interaction result in common attitudes, provided that the reward-cost outcome ratios are positive.

Summary

The literature reviewed in this section indicates that businesses, government agencies, and citizens with disabilities appear to be entering into a period of greater interaction and cooperation. The history of public attitudes toward both corporate social responsibility and toward persons with disabilities has been traced. Years of providing services and recent experience in administering the Vocational Rehabilitation Act resulted in recognition of the

benefits of work for all disabled people. Eventually this led to the Projects With Industry program. PWI has emphasized the direct involvement of the corporate community into the process of placement and integration of persons with disabilities into competitive employment. The Projects With Industry program may be viewed as the result of the unconsummated union of conservative business and liberal welfare programming. PWI appears to provide a greater marketing orientation to the vocational rehabilitation process than the state/federal Vocational Rehabilitation program from which it was conceived. Program effectiveness studies have been conducted on each of these employment delivery systems. However, the time has come to measure the results of this unholy union and consider the future implications of such private-public hybrids on the democratic behavior of public generations. The PWI performance indicators, as derived from the 1986 Amendments to the Vocational Rehabilitation Act, the data elements from multiattribution utility theory, and VR national databases are all needed to provide the yardsticks to measure the PWI child against its Vocational Rehabilitation parent.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Introduction

The methodology and procedure used in this study are described in this section, including identification and selection of the sample, the variables to be studied, and the methods used in collecting and analyzing data.

As concluded in the last chapter, there are significant differences in the competitive placement levels of the state/federal basic Vocational Rehabilitation Section 110 and those of Projects With Industry programs. These differences, it is argued, are related to differences in organizational marketing orientations. A market research plan using comparative state-level data has been devised to test this hypothesis.

In seeking to operationalize measures to examine the two programs nationally, it was found that the available national databases do not contain the same informational format for all variables. It is thus not possible to do a complete comparison at any single point in time. Multiple year analysis was performed as a substitute. When examined in this fashion, the available measures provide an opportunity to identify the critical vocational rehabilitation system trends.

Theoretical Framework

The major goal of this study is to determine the impact of marketing as a strategy to improve the number and quality of job placements for persons with disabilities. The major objective is to compare competitive job closure outcomes of the state/federal basic Vocational Rehabilitation program (Section 110) with those of the federally funded Projects With Industry program. Program differences were examined along with the possible existence of differences in employers' perceptions of the salience of various marketing factors.

Since both of these manpower programs are public sector marketing models, this study primarily investigated the degree of strategic effectiveness within the competitive employment marketplace for each program. This was done by comparing ratings on employer expectations and perceived program performance levels over a series of marketing factors.

Differences in expressed satisfaction levels were examined for various groups, including Michigan Rehabilitation Services, Projects With Industry employers, and PWI business advisors. Possible relationships between the expressed satisfaction ratings and market factor ratings were also examined.

Finally, this study identified some reasons for employer involvement in the Projects With Industry program and suggested some improvements in the administration of both programs based upon the research results.

The Research Model

There are three interrelated dimensions of work disability: the presence or perception of physical or mental handicaps, a reduced work capacity, and an unaccommodating environment in which to function. Public policy in the United States and elsewhere has attempted to deal legislatively with each of these three interrelated dimensions. There are two major programs that have been established through federal legislation to directly place persons with disabilities into the competitive labor market: the basic state/federal Vocational Rehabilitation program as defined by Section 110 of the Vocational Rehabilitation (VR) Act and Projects With Industry (PWI). In its simplest terms, the model in this dissertation is based on the assumption that these two programs have a similar legislative intent--the successful placement of persons with disabilities into competitive employment. The programs also use many similar practices to promote the successful placement of persons with disabilities into competitive employment. Thus, those similar intentions and practices should be statistically comparable.

General Assumptions

A series of assumptions, based upon the review of the literature, provide the theoretical model for the derived research hypotheses. They are as follows:

1. Public policy in the United States has deemed that competitive employment of persons with disabilities is both cost effective

and necessary for the well-being of its citizens.

2. The competitive labor market imposes barriers to direct entry by persons with disabilities; special assistance is required for the removal of these barriers.

3. There exists in the United States, a sense of corporate social responsibility that promotes company involvement in social programming, including affirmative action for the employment of persons with disabilities.

4. Public sector assistance that focuses upon external labor market barriers is more effective than assistance that focuses upon the internal barriers imposed by the person with the disability.

5. The major legislative intent of Projects With Industry programs and the basic state/federal Vocational Rehabilitation program is the competitive employment of persons with disabilities into the competitive labor market.

6. Each of these programs provides assistance to persons with comparable levels and types of disabilities.

7. The greater the level of corporate involvement in a rehabilitation service provider's program, the greater the probability of obtaining competitive employment for that rehabilitation program's clients.

8. The involvement of corporate representatives with rehabilitation clients during rehabilitation programming results in higher entry level wages, different occupational choices, and greater employment opportunities.

9. Public sector programs designed to promote the employment of persons with disabilities engage in similar practices.

10. With direct corporate involvement in the rehabilitation process, there is a higher degree of employer satisfaction with the rehabilitation programs.

11. Overall, the strategic effectiveness in meeting a program's legislative intent was higher for those programs that demonstrated greater outside corporate and citizen participation.

12. The characteristics of corporate citizens who participate in rehabilitation programs are the same as of those who do not--the opportunity for participation is different.

13. There are many different strategies to involve corporate citizens in the rehabilitation process. The greater the direct involvement with persons with disabling conditions, regardless of the strategy, the greater the level of the outcomes.

Limitations of the Research

In examining these two rehabilitation programs, it soon becomes apparent that despite their stated legislative intent, PWI is complementary to, rather than competitive with, the state/federal VR program. The Policy Studies Associates (1986) study reported that 88% of the PWI participants have received VR-supported services prior to PWI entry. This figure includes those clients who were directly referred to PWI from a state VR agency (78%) and another 10% from VR-sponsored rehabilitation facilities. The high proportion of PWI participants who have received prior VR services, along

with the high proportion referred to PWI by VR, suggests a high degree of coordination between the two programs. It also implies that both programs are recording the same competitive closures for PWI placements. The VR closure data were corrected in this study to eliminate possible duplications between the two programs. Such intermixing of services to the same clients by both programs also makes a direct cost comparison virtually impossible. Dean and Dolan (1983) using the same R-300 data sources thus concluded that "relatively little can be confidently concluded" (p. 19) about VR economic performance, given the data and methods currently employed.

Other research limitations must also be recognized. Under RSA definitions Status 26 defines a client as successfully placed in a job when he or she has retained employment for a period of 60 days. Over the years, Status 26 has been expanded to include homemakers who are recorded as receiving no income for their services to their families in the home. Additional clients are closed as unpaid family workers, and others are employed for less than the minimum wage in sheltered workshops. Still others are closed as VR clients self-employed and working only part time for minimum compensation with marketing organizations such as Mary Kay Cosmetics and Amway. Since PWI in 1988 was solely intended for those clients placed in the competitive labor market, only such placements are considered here.

Under the VR case coding system, Status 08 is given to clients who have applied, but have not been accepted for services. Status 28 is assigned to clients receiving VR services, but not successfully placed in employment. Status 30 is reserved for those clients

who are accepted, but have received no services. Under the PWI performance indicator conditions, if any services are provided to clients, they must be counted as served. Thus, all but VR Status 08 clients are included in the count of those served by both programs. The traditional approach to Vocational Rehabilitation competitive placement can thus be compared directly to the more market-driven approaches found in PWI without debating the validity of less than competitive outcomes.

Hypotheses

In light of the preceding theoretical model, assumptions, and research limitations, the following hypotheses can be tested:

Hypothesis 1: There is a significant difference in the proportion of competitive placements between clients who are placed directly by state/federal basic Vocational Rehabilitation programs and those clients directly placed by federally funded Projects With Industry programs.

Hypothesis 2: There are no significant differences in the level or types of disabilities between clients who are placed directly by state/federal basic Vocational Rehabilitation programs and those clients directly placed by federally funded Projects With Industry programs.

Hypothesis 3: There are significant differences in overall client characteristics of race, education, and age who are placed directly by state/federal Vocational Rehabilitation programs and those clients identified as served by federally funded Projects With

Industry programs.

Hypothesis 4: There are no significant differences in weekly earnings between clients who are placed directly by state/federal Vocational Rehabilitation programs and those clients directly placed by federally funded Projects With Industry programs.

Hypothesis 5: There are no significant differences in the types of occupations into which clients from each of the identified programs are placed.

Hypothesis 6: There are no significant differences in employer perceptions of the federally funded Projects With Industry programs and the state/federal basic Vocational Rehabilitation programs.

Hypothesis 7: There is a significant difference in the degrees of relationships of importance and performance ratings as expressed by federally funded Projects With Industry program employers as compared to those expressed by employers of clients placed directly by the state/federal basic Vocational Rehabilitation programs.

Research Design

This comparative research study examined each aspect of both the VR and the PWI job placement service delivery systems. It began by comparing, on both a national and a state level, the characteristics of those being served by both programs. The input characteristics included both disability and demographic information including: primary disability type, severity level, age, race, and educational level.

It was anticipated that at either the state or national level there would be no significant differences between the PWI and the VR groups in major primary disability codes, severity levels, and other client demographics such as age, race, and educational level. Due to federal regulation, data regarding a person's gender cannot be collected. Student t tests, analysis of variance (ANOVA), and population percentages were used to test for significant differences among the various groups measured.

It was further anticipated that at both the state and national level, there would be significant differences in the overall clients' outcomes including placement rate, type of employment, and change in income. Student t tests, ANOVA, and population percentages were used to test for significant differences among the same groups.

To test for differences in the treatment process used by these two job placement delivery systems, a case study approach was employed. It was anticipated that if the input characteristics were similar and the outcomes were different, then differences in the treatment process used by the two programs must be implicated. From the review of the literature, it appears that such differences may be the result of differences in marketing strategies.

Due to resource limitations, this study explored only one state marketing process in detail. This state level case study, however, examined 31 different marketing elements grouped into five marketing factors. These factors include: Relationship Management, Handicapper Specific elements, Screening, Supply, and Training. The

employer's perceptions of the importance and their ratings of the programs' performance on each of these marketing elements were compared. Moreover, the differences in the importance rating and performance rating within each program was examined. The relationship of the importance and performance ratings can thus be correlated and plotted. Pearson product-moment correlations and student t tests of differences were additionally used to compare differences in these identified marketing elements. Significant differences at the .05 level in these program measures were hypothesized for the two programs at each level of the study.

It was assumed in this study that employer satisfaction with the program leads to increased levels of job placement. Thus, employer satisfaction serves as the dependent variable in this study. Student t tests were also used to test for differences in employer satisfaction levels for the different programs. Multiple regression analysis was used to determine the amount of contribution of each of the marketing factors elements to the dependent variable, employer's satisfaction. Where possible, measures were correlated with the general population and each other to determine the degree of relationship among the four groups, Michigan's Vocational Rehabilitation Services (MRS), Michigan's Projects With Industry (PWI), all other Vocational Rehabilitation (VR) agencies, and all other Projects With Industries (PWIs).

The RSA-911 (1986) client reporting system required of all state Vocational Rehabilitation agencies provides a good beginning research tool for this study on the macro level. The placement

percentage measure was the ratio of the number of clients placed to the number of clients served.

One primary measure of marketing effectiveness is the amount of repeat business (Pride & Ferrnall, 1983) that an organization is able to generate. In this study, repeat business can be measured by the number of companies that hire additional clients from an agency. The assumption is that if the customer is satisfied, then additional job orders can be expected. The multiple placement variable is generated by the number of companies that have hired more than one client since November 30, 1986.

In order to assess employer perceptions of PWI and the state/federal Vocational Rehabilitation program, the differences in responses to a marketing survey for the two groups were analyzed. One survey group included all potential employers of a state Vocational Rehabilitation program and the particular users of that service. The other survey group consisted of the PWI employers from that same state.

In the survey, questions on organizational and employer demographics required numerically objective responses, such as, size of company and years on the job. Other questions on the degree and kind of marketing relationship desired and the degree and kind of product assistance required provided an opportunity for employers to rate on a scale from 1 to 10 the importance of various employment marketing factors identified by the employer and counselor focus groups. The validity and salience of these measures were determined in the initial study of randomly selected employers. The rated

factors were evaluated both by employers working with MRS and PWI and by staff members from both programs. The following serves as the six evaluation criteria for the marketing survey study for both groups:

1. Degree and kind of marketing relationship desired.
2. Degree and kind of product assistance required.
3. Organization demographics.
4. Evaluation of marketing techniques.
5. Evaluation of organizational performance.
6. Employer demographics.

Several perceptual factors were analyzed, including ratings in overall satisfaction, relationship management, training, screening, supply, handicapper specific issues, and overall strategic effectiveness.

Data Collection

The following procedures were used to obtain the data. The primary comparison data sources were taken from the Fiscal Year 1988 Form 911 report which is requested of all VR state agencies by the federal Rehabilitation Service Administration and from the RSA request for Fiscal Year 1988 Performance Reports from all Projects With Industry. This PWI Performance Report was developed by the RSA office of Policy Planning and Evaluation based upon the PWI Performance Indicators as recommended by Congress and modified in the Policy Studies Associates' 1986 PWI program evaluation field tests (Appendix D).

The baseline perception survey instrument of the Michigan employer population was developed by a panel of Michigan Rehabilitation Services (MRS) employment specialists and modified and approved by that agency's executive committee. Over 300 Michigan employers were asked to respond to a mail survey of their perceptions of persons with handicapping conditions as workers. These results were compared for significant differences with a previous survey of employers' perceptions of the Michigan Rehabilitation Services.

National VR Program Databases

Visitations were made to 8% of the 112 PWI projects to further verify the RSA PWI Performance Indicator data. These projects are located in Florida, Michigan, Pennsylvania, Washington, D.C., California, Georgia, and Texas. Because of the travel expenses involved, these sites were not randomly selected, but were conveniently available to the researcher. The nine sites, however, did include several of the largest PWI projects, such as those sponsored by International Business Machines (IBM) and the National Restaurant Association, and several of the smaller PWIs, such as those sponsored by the University of Pennsylvania and Atlanta, Georgia, Goodwill. All of these PWI sites permitted an audit of their Fiscal Year 1988 Performance Indicator data and afforded an opportunity to view their programs in operation. A meeting with high level Rehabilitation Services Administration officials was arranged in Washington, D.C., to explore their ideas on the research design and review the results of these program audits. Several anomalies were

noted and confidential hard copies of original source documents were supplied to verify the electronically supplied data. Several coding errors were detected and corrected.

Fiscal Year 1988 was the first year that all PWIs were required to submit Performance Indicator information. The PWIs were instructed that this information would serve only as baseline information for the submission of Congressionally mandated information in subsequent years. This report requested information on both the numbers of closures and cost per closure as baseline data for possible future funding levels; there was no incentive to report inaccurate data to RSA. Over reporting in placements by a project would result in a lower cost per placement benchmark for future funding. Under reporting could lower a program's chances for higher ranking in the future. This information was also compared with Fiscal Year 1984 data obtained by Policy Studies Associates (1986) under a separate RSA contract.

Selected state annual reports served to verify the much larger 911 Case Service database. Those data were originally compiled and verified through an RSA contract to the University of West Virginia's Rehabilitation Research and Training Center in Morgantown.

Fiscal Year 1988 was the first year that the VR and agencies for the blind in the 50 states and territories were required to submit data for the new RSA-911 Case Service Reporting system. It was also the most current year for which these data were available from RSA. The RSA-911 Case Service Reporting system represents an

attempt to compile client service data into a nationwide electronic database. This effort has been only partially successful, since only 50 of the 101 state agencies and territories have electronically readable tapes. Half of the reporting state agencies thus did not comply with RSA's request for a properly EBCDIC-formatted data tape. Prior to Fiscal Year 1988, rehabilitation data were reported on the R-300 client data format. This information was hand tabulated by RSA. Ten of 50 reporting agencies in Fiscal Year 1988 continued to report their data using the R-300 form, but on an electronic tape. In combining the RSA-911 and the R-300 information only like data elements were used for this study.

The states that are in this sizable sample appear to be distributed well in terms of types of agencies, size, and geographic representation by state as shown in Table 1.

Table 1
Fiscal Year 1988 State Vocational
Rehabilitation Client Reporting

Region	State agency	No. of clients reported
1	Massachusetts VR	4,474
1	Massachusetts Blind	233
1	Maine VR	875
2	Puerto Rico VR	3,455
2	New Jersey Blind	454
2	New Jersey VR	5,505

Table 1--Continued

Region	State agency	No. of clients reported
2	New York Blind	715
2	New York VR	8,864
3	Delaware VR	816
3	District of Columbia VR	563
3	Virginia VR	4,028
3	Virginia Blind	350
3	West Virginia VR	2,763
3	Maryland VR	3,858
4	Alabama VR	6,204
4	Florida Blind	923
4	Georgia VR	7,640
4	Kentucky VR	3,767
4	Mississippi VR	3,724
4	Mississippi Blind	175
4	South Carolina Blind	230
4	Tennessee VR	1,680
5	Illinois VR	6,086
5	Indiana VR	4,041
5	Michigan VR	6,545
5	Minnesota Blind	578
5	Minnesota VR	3,852
6	Arkansas Blind	312

Table 1--Continued

Region	State agency	No. of clients reported
6	Arkansas VR	5,974
6	Texas VR	14,864
7	Iowa VR	2,529
7	Kansas VR	1,689
7	North Dakota VR	644
8	Colorado VR	2,061
8	Utah VR	2,703
8	Utah Blind	69
8	New Mexico VR	783
9	Arizona VR	1,795
9	California VR	19,591
9	Hawaii VR	769
10	Alaska VR	451
10	Oregon VR	1,626
10	Washington Blind	125
Total number of Fiscal Year 1987 VR cases in sample		138,383

Similar data elements from Fiscal Year 1983-85 R-300 reports were also compared to check for possible longitudinal changes over time. Since all available Blind and VR agencies were included, the possibility of significant sampling error could be checked.

Market Research Case Study

The state-level market research portion of this study consists of comparison of employers involved in the vocational rehabilitation agencies and programs in the state of Michigan. This includes the state agency, Michigan Rehabilitation Services (MRS), and Michigan's two Projects With Industry programs, Project Say Yes to Networking Energies and Responsiveness for Gainful Efficient Employment (SYNERGEE) and Project National Industrial Center for Handicapper Employment (NICHE). Project SYNERGEE has five satellite programs and Project NICHE has two programs. Michigan was selected for the case study partly because of convenience; however, Michigan's Vocational Rehabilitation system also is considered by many in the national rehabilitation community to be a progressively managed system. Michigan Rehabilitation Services has been developing a strategic plan to become more market driven.

The original four-phase design of the marketing study resulted from a Michigan Rehabilitation Services contract with a marketing consultant, Dr. Christine Lewis of Wayne State University, in Fiscal Year 1988. The intent of this market research was to provide a baseline for future marketing efforts. This initial unpublished study, in which this researcher was also involved, was built around a four-phase design. It included the following four data sources:

1. Closure sample: A 10% sample, 1,950 cases of competitive 26 closures for Fiscal Year 1985 through Fiscal Year 1987 was compiled in order to obtain market demographics and baseline data. The

questions addressed client placement by disability type, job title, wage rates, type of employer, and type of industry that hired MRS clients.

2. Employer interviews: Data from 30 individual employer interviews (lasting from 1 to 3 hours) were used to design the format and content for the employer survey instrument.

3. MRS counselor focus groups: A total of 32 counselors, 8 drawn from each of four Michigan regions, one per geographic area of the state, was convened to test the survey instrument, validate the trends, and generate hypotheses from the closure sample.

4. Employer survey: A sample of 97,347 Michigan employers was obtained from Dun and Bradstreet's (1988) Market Identifiers and subdivided into two group sizes: small employers (5-49 employees) and large employers (50 or more employees). Data from telephone interviews were obtained from a sample of 500 large employers and 500 small employers. This group was further divided to identify those employers who had contact with MRS within the past 3 years. It included 320 large employers and 50 small employers.

For the PWI market research, an additional section on reasons for employer involvement was added. The same survey was administered to a random sample of 312 employers.

The extent to which employers are influenced by different marketing approaches was studied and compared using a set of employer variables such as: (a) participation/nonparticipation in a PWI or other rehabilitation program, (b) presence or absence of a disabled family member, and (c) prior experience in working with disabled

workers.

Employers were randomly selected from Dun and Bradstreet's (1988) Market Identifiers database. This provided evidence on the perceptions of Michigan Rehabilitation Services held by the employers in the marketplace. The study also focused on measuring the perceptions of Projects With Industry programs held by those employers who are or have participated in a Projects With Industry Business Advisory group. The study compared BAC members' views to those of randomly selected control group employers who had worked with Michigan Rehabilitation Services only.

Four state level hypotheses were identified as needing to be tested. Differences in levels of satisfaction, perceptions, strategic effectiveness factors, and employer characteristics, were tested in this marketing analysis section. Differences in the direction of and degree of correlation for strategic effectiveness factors were also of particular interest to this study. The MRS results were taken directly from original MRS telephone data files provided by Lewis (1988). All of Michigan's PWI programs were examined for individual differences in each of these four identified hypotheses. Such measures provide opportunities to view over and under performance on the strategic effectiveness factors.

The employer perception factors were identified in the Lewis (1988) study by lengthy personal open ended interviews. Fifty randomly selected Michigan employers responded to questions on factors that they "consider[ed] the most important in deciding to start a relationship with an organization that helps you find new

employees." They were also asked in the Lewis (1988) study to identify service factors that (they) might "consider important in a relationship with an organization that represents applicants with a handicap." In this survey, the term "handicap" was identified as "applicants who are deaf, blind, mildly retarded, or have a physical handicapping condition."

Data Analysis

Four major sources provided basic data on the state/federal Vocational Rehabilitation program and Projects With Industry. The Fiscal Year 1988 RSA-911 Case Service Reporting information and the Fiscal Year 1988 Projects With Industry Performance Indicators data were obtained from the Rehabilitation Services Administration and compared. Student t tests were used. In addition an ANOVA was utilized to examine the possible differences in the variances of each of the demographic variables identified as independent variables at the state and federal levels. For the case study portion of the study, the data from two separate marketing studies were compared. Also the level of agreement between the expectation and the performance ratings of each of the 31 marketing elements within each of the studies were compared. Using multiple regression the case study independent variables were correlated with the dependent variable--satisfaction.

Since most employer surveys involve mailed questionnaires, low response rates--usually less than 20% for national studies--are typically experienced. Thus, follow-up correspondence and

telephoning were used to reduce this problem. Anonymity of individual respondents was assured and maintained. All participants were informed that they would receive a summary report highlighting the study's findings.

In coding the mail survey data, "no response" and "not applicable" were scored as missing values. In comparing the frequency distributions of original data sources for the two studies, it was discovered that the Lewis (1988) data analysis did not score the "not applicable" as missing, thus unintentionally inflating the mean scores with 11 score ratings instead of as missing values and thus not included in mean calculations. All comparisons in this study have corrected for these errors.

Case Study Survey Questionnaire

The survey instrument was constructed under the direction of marketing consultant Dr. Christine Lewis (1988) with the assistance of Michigan Rehabilitation Services office staff, a group of 32 MRS field counselors, and an employer focus group. The following factors were determined and tested as important marketing factors that influence an employer's decision to hire a person with a disability: customer service or management of client relationship (Relationship Management factors), pretraining of job candidates (Training factors), prescreening (Screening factors), ability to provide adequate supplies of labor resources (Supply factors), specific factors such as second injury certification (Handicapper Specific factors), and overall satisfaction with the past performance of a placement

organization (Strategic Effectiveness factors). The Strategic Effectiveness factors were an overall measure of how well each program was perceived to be performing in those areas judged to be the most important to employers. Each factor contained a series of related questions measured on a scale from 1 for poor to 10 for excellent. Overall rankings based on the mean performance scores of the 31 marketing elements were also compared for each program.

In addition the PWI employer group was asked to rate some of their direct and indirect reasons for participating on a Projects With Industry's Business Advisory Committee. Appendix A contains the employer survey questionnaire and a copy of the cover letter used to explain the purpose of the survey.

In both studies, the respondents were asked to rate the importance and performance of both the relationship starting and service providing factors that were identified by the Lewis (1988) study. Each element was rated on a scale from 1 for a poor rating to 10 for an excellent or most important rating. In addition both studies asked for demographic information about the respondent and for the characteristics of the organization that they were representing. In the Lewis (1988) study, additional questions were asked on how the respondent also perceived direct and indirect competitive organizations. The survey in this study asked Business Advisory Committee members, instead, why they participate on the Business Advisory Committees. Other PWI items in this survey included the organization(s) with which they had experience in the past 3 years and how they had worked with this (these) organization(s).

Summary of the Research Design and Methodology

The purpose of this research was to compare the nature and strategic effectiveness of the Rehabilitation Services Administration's employment programs known as Projects With Industry and the basic state/federal Vocational Rehabilitation program. Comparisons were made of these programs on both a national and state level. The major design criteria for the conduct, on a national level, of this comparative study included comparisons of input and outcome differences. Program inputs were client disability characteristics and demographics such as age, race, and educational level. Program outcomes included placement rate, occupational categories, and changes in income levels.

The state of Michigan was used for the in-depth case study portion of this research. In addition to comparing most of the same program inputs and outcomes, an employer marketing survey was conducted with 312 PWI employers. The results were compared to a previous study (Lewis, 1988) of Employer's Perceptions of Michigan Rehabilitation Services using the same 31 marketing elements. Both the employer's expectations of the placement program and their ratings of the program performance on these marketing elements were analyzed for differences. The survey also asked for an overall program satisfaction rating. This rating then served as the dependent variable in a multiple regression analysis to find out how much each of the marketing elements contributed to the overall level of employer satisfaction. An extra set of questions was included to

test the motives of the employers who volunteered to become business advisors.

CHAPTER IV

FINDINGS

Section I--A National Level Comparison

Introduction

An analysis of the data for the two major research questions identified in Chapter III is presented in this chapter. First, competitive closure outcome data for the Vocational Rehabilitation and Projects With Industry sample groups are observed in this section of the findings and then some possible explanations are explored in Section II.

A comparison of the descriptive profile of the clients served by both the traditional state/federal basic Vocational Rehabilitation and the Projects With Industry programs reveals interesting but not necessarily unexpected results. However, in viewing the results, it must be remembered that Projects With Industry is essentially a subgroup of the much larger state/federal basic Vocational Rehabilitation population, which in turn is only a part of an even larger population of disabled adults in the United States.

In conceptualizing the outcome, it should be noted that within the larger context of all United States citizens, 16-64 years of age, both the labor force participation rate and relative economic status of persons with disabilities were considerably lower in 1988

than in 1982. According to the U.S. Bureau of the Census (1989), Current Population Report P-23, the full-time labor force participation rate of men with a work disability in 1988 was 23.4%, while another 12.3% were employed on a part-time basis. The total figure of 35.7% was considerably lower than the 1982 labor force participation rate of 41.5%. At the same time there was no statistical difference reported in the labor force participation for men without a work disability in 1982 (88.8%) and 1988 (88.9%). The disabled to nondisabled annual earning ratio among male workers fell from .77 in 1980 (\$12,579/\$16,362) to .64 in 1987 (\$15,497/\$24,095). Thus, there is little doubt that U.S. citizens with work disabilities require external assistance in accessing and mastering labor markets. Their lack of national gains in a tight labor market brings into question the effectiveness of society's two major employment programs for the disabled. However, the Paperwork Reduction Act of 1980, a Reagan initiative to reduce record keeping during this time period, creates significant stumbling blocks for a complete comparative analysis of the programs in question.

Although this study is hindered by the absence, or at best the partial availability, of federal databases, the existing information teased out from a variety of sources does provide a good beginning for a comparative analysis of these two programs over time. Congress authorized the Projects With Industry program to collect data for the Policy Studies Associates (PSA, 1986) study in Fiscal Year 1984. Continual databases were maintained beginning in Fiscal Year 1987. Thanks to the information provided by the 1984 PSA study and

the Performance Indicator information in Fiscal Years 1987 and 1988, it is now possible for the first time to view output levels of the Projects With Industry program. Unfortunately, for comparative purposes, Fiscal Year 1987 is the only year since the inception of the state/federal basic Vocational Rehabilitation program in the 1920s when less than a full population count was available. Since the irretrievable loss of these data was the result of random computer error in the Rehabilitation Services Administration (RSA) data conversion attempt, however, sampling error is considered minimal. An analysis of the existing data shows that each of the RSA's 10 designated regions in the country has data from at least two of its states. An estimated 78% of the 172,000 total competitive placements still represents a sizable sample with which to work. When placed in the context of this 5-year study (Figure 2), the missing data show up as only slight depressions on the Vocational Rehabilitation "served" and "placed" outcome chart. The lack of growth in these two hallmark measures of program outcome, during a time of significantly increasing need by both clients and employers, is most remarkable.

Competitive employment, as shown in Table 2, is but one of the state/federal basic Section 110 Vocational Rehabilitation outcome options. This option of competitive employment as illustrated in the literature review, however, appears to best represent the Vocational Rehabilitation legislative intent for both programs.

Work status of VR closures by percent

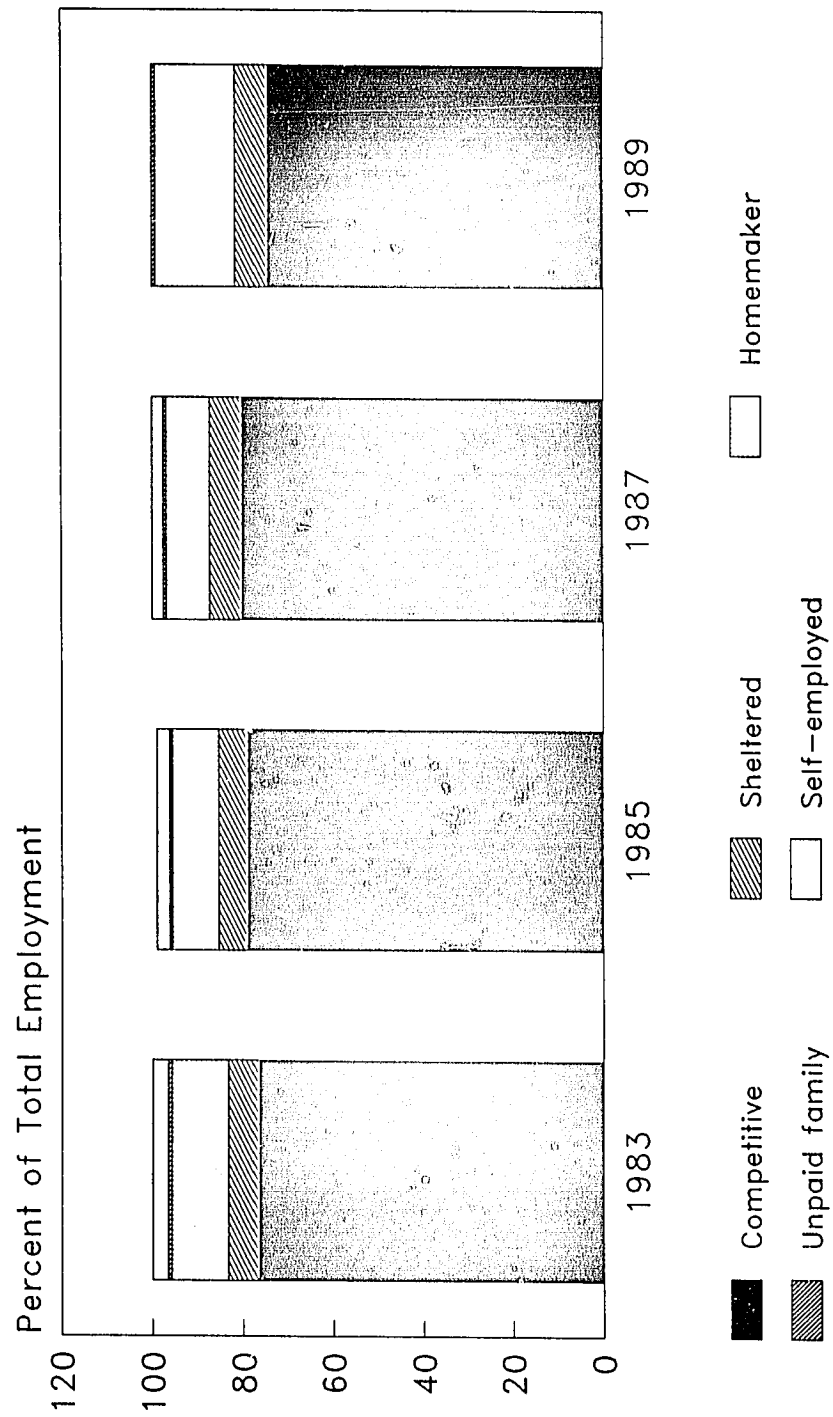


Figure 2. Work Status of VR-110 clients

Table 2
Vocational Rehabilitation Section 110 Program
Work Status at Closure

Outcome option	Fiscal year					
	1987		1985		1983	
	No.	%	No.	%	No.	%
Competitive employment	134,182	80.1	172,513	79.8	162,348	77.1
Sheltered workshop	11,874	7.1	13,749	6.4	14,172	6.8
Homemaker	16,284	9.7	22,335	10.3	26,806	13.3
Unpaid family worker	926	0.6	1,345	0.6	1,797	0.8
Self-employed	4,231	2.5	6,223	2.9	7,198	3.0
Totals	167,497	100.0	216,165	100.0	212,321	100.0

Internal Validity

After a brief review of the major outcomes of both programs, this study provides various internal validity checks. The inference that on a national level, a vocational rehabilitation client's probability of becoming competitively employed at a higher wage level is significantly higher with exposure to a Projects With Industry program was tested on various validity levels. These internal validity checks attempted to guard against both group and time threats. The concept of vocational rehabilitation marketing was first identified

and defined as the interrelationship of factors considered most important to employment managers in making the decision to hire a new employee. These marketing factors were then tested for significant differences against the independent nominal variables of Projects With Industry and traditional state/federal basic Vocational Rehabilitation treatment.

Dooley (1984) suggested that social research designs consider four major time threats: history, reactivity, maturation, and instrumentation. The latter "can be controlled by inclusion of a comparison group which is subject to the same time-related factors" (p. 127). The national databases of Vocational Rehabilitation outcomes between Fiscal Years 1983 and 1987 provide the needed comparison group and a 5-year historical validity check. Thus, an analysis of the results should begin with a look at the baseline measures of the state/federal basic Vocational Rehabilitation comparison group.

Table 2 shows a clear trend from the sheltered and unpaid types of employment options to competitive employment between Fiscal Year 1983 and Fiscal Year 1987. Competitive employment is the selected Vocational Rehabilitation outcome in about 80% of the cases, while the PWI operators report only the competitive employment option at closure for 1987. This study, thus, will only view the competitive employment option for both programs.

The category "self-employed" includes state agency-managed enterprises and Randolph-Sheppard vending stand personnel. Table 3 shows the numbers of clients who were served and placed into competitive employment by the two programs from Fiscal Years 1983 through

1988. The placement percentage, a ratio of the number of clients served over the number of clients placed for each program, provides a comparative placement rate for each program. Table 3 also lists available placement rates for both programs. Figure 3 illustrates considerably higher placement percentages for the Projects With Industry program than those reported by basic Vocational Rehabilitation outcome data.

It is important to recall at this point that each program is defining dependent and intervening variables in essentially the same way. Dependent variables include: number placed, number served, placement rate, earnings level, occupational outcome, and SSI/SSDI status. Both programs also use the same intervening variables, including type of disability, severity level, race, and educational level. Thus, instrumental internal validity threats are minimized.

Reactivity is not a factor because no direct intervention or experimental contact by the researcher is made with subjects on this portion of the study. Only the composite client data, as reported by the state agencies and Projects With Industry program to the federal vocational rehabilitation agency, are collected. On the second part of this study, the researcher had only indirect contact with a very small portion of the sample of only one of the six Projects With Industry groups. Maturation time validity threats are controlled directly through the use of comparative program measures during the same time periods.

Group validation threats, such as special selection biases that affect differences between groups, other than the definite

Table 3
Competitive Employment Outcomes for VR and
PWI Clients for Fiscal Years 1983-1987

Fiscal Year	PWI		VR-110	
	No.	%	No.	%
Total clients served				
1983	14,072		928,923	
1984	16,236		938,180	
1985	N/A		937,779	
1986	14,023		923,774	
1987	25,152		917,482	
1988	9,010 ^a		918,876	
Total number of clients placed into competitive employment and placement rate				
1983	8,512	61%	162,348	17%
1984	8,441	52%	172,981	18%
1985	N/A		172,513	19%
1986	1,198	65%	172,745	19%
1987	14,761	59%	134,182	15%
1988	6,201	69%	174,033	19%

^aAs reported to the Rehabilitation Service Administration PWI grants office for the first 6 months of the 1988 project year by 99 of the 112 federally funded RSA projects.

VR110 & PWI Competitive Placement Rate

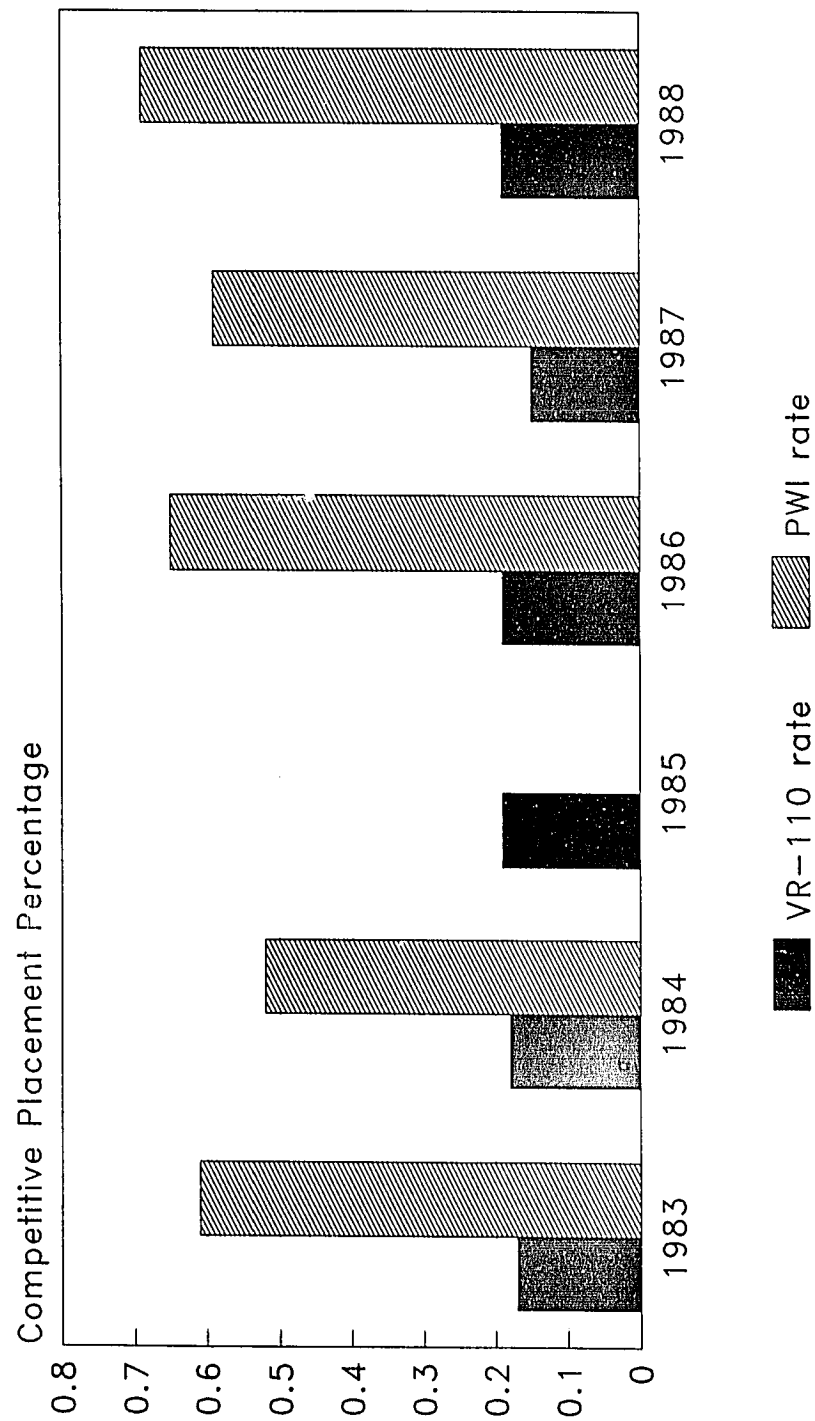


Figure 3. PWI & VR-110 Placement Rates
Note: 1985 PWI rate not available.

differences identified by the researcher present a significantly more difficult challenge. Dooley (1984) identified "regression," "selection," and "selection interactions" as possible group threats to be considered. He stated:

Group threats can be minimized by random assignment, that is, placing subjects in groups in such a way that the subjects all have equal chances of assignment to each group. . . . Another approach to equalization is matching. In matching, two subjects are selected to be similar on a number of criteria such as sex, age, status, and pretest scores. Then, one subject of each pair is assigned to each group. (p. 131)

The fact that the post-Projects With Industry outcome measure may be influenced by the selective inclusion of subjects in the Projects With Industry program poses the greatest validation threat to this study. Since this is an a priori study, the extent to which characteristics of each group actually match provides measures of possible group selection validity errors. If both groups are found to be alike in disabling condition type, severity level, and other demographic factors, then the validity of group exposure to the Projects With Industry program can be better isolated. Such errors were also found to be minimal. The 1984 Policy Studies Associates (1986) study found that "Projects With Industry projects are based in a diverse array of organizations, including rehabilitation facilities, social service agencies, educational institutions, corporations and trade unions" (p. 134). This study also found a relatively high level of coordination of referrals, placement, and other services with the Vocational Rehabilitation system. The diversity of PWI settings and its coordination with the state/ federal basic

Vocational Rehabilitation system were found to provide, on the whole, high correlations between matching characteristics. This included client representation from every state and area of the United States.

The massive size of the two national groups minimizes the validity problem of regression by extreme range of scores towards the means and minimizes selection interactions by individuals within each of the groups during the periods of time that they were being measured. Thus, a few highly skewed program or client outcomes had minimal effect on the sample population as a whole.

Outcome Measures

In this portion of the study, the results of the two leading vocational rehabilitation programs in the United States are examined. Only competitive employment is considered in Table 3 as opposed to the "total numbers rehabilitated" (a term often used by the state/federal VR agency) which includes all of the work status shown in Table 2 and Figure 2. Competitive employment is more reflective of the continuing legislative intent of the Vocational Rehabilitation Act.

Hypothesis 1 is supported. Substantial differences in the competitive closure outcomes for Fiscal Years 1984 and 1987 were found between the Projects With Industry treatment group and those clients who were served only by the state/federal basic Vocational Rehabilitation program as indicated in Table 3. A two-tailed difference of proportions test rejects Hypothesis 1 that this

difference in the placement rate is not significant at the .001 level. An analysis of the variance for the two groups provides an F value of 117.75 at less than the .001 level of significance.

Input Measures

In this quasi-experimental design, it is first necessary to test if the two groups are serving the same population. To answer this question, Fiscal Year 1984 closure data for both programs were used, since that is the last year that Congress authorized RSA to collect demographic data for the Projects With Industry program (except for SSI/SSDI status and the severity of disability level). If the state/federal basic Vocational Rehabilitation programs are serving a more severely disabled population, then the Projects With Industry programs could be accused of "creaming" as a means of obtaining higher competitive closure outcomes. However, the results of this analysis indicate that Projects With Industry placed a significantly higher proportion of persons with severe disabilities than basic Vocational Rehabilitation program in Fiscal Year 1984 and a comparable proportion in Fiscal Year 1987. Table 4 provides a comparison of the major disabilities and severity level of the clients' major functional limitations for both the state/federal basic Vocational Rehabilitation and the Projects With Industry programs. The observation that the Projects With Industry programs are serving, on a whole, more difficult cases is further supported by Mithaug's (1979) finding that the orthopedic types of disabilities were more acceptable to employer, and persons with mentally retarded

Table 4
VR-110 and PWI Client Disabilities Levels and Types

Disability variables	PWI		VR-110	
	No.	%	No.	%
<u>Severity Level</u>				
Severely disabled Fiscal Year 1984	10,388	64.0	124,195	57.4
Severely disabled Fiscal Year 1987	14,727	58.5	135,229	59.4
<u>Primary disability Fiscal Year 1983</u>				
Visual impairments	1,136	6.9	16,905	8.1
Hearing impairments	1,298	7.9	15,436	7.4
Orthopedic	2,759	17.0	47,587	22.8
Absence/amputation	487	3.0	17,854	2.6
Mental illness	4,058	25.1	55,536	26.0
Mental retardation	2,435	15.1	25,973	12.5
Other	4,220	25.9	46,001	21.0

handicapping conditions were the least likely to be hired. About 22% of Vocational Rehabilitation program placements are for the "more acceptable" orthopedic clients, compared to only 17% in the case of the Projects With Industry program, but the Projects With Industry programs serve about 3% more mentally retarded clients than the state Vocational Rehabilitation agency programs. Other studies

by McConnell (1986) and Colbert et al. (1973) also support this claim.

Hypothesis 2 is not supported. The hypothesis that there are no significant overall differences in both the primary disability classifications and severity level was accepted at the .05 level when both the student t test of proportion differences ($t = -1.14$) and an ANOVA statistical test for variance ($F = .37$) did not produce significant results. Figure 4 provides the individual classification variations.

One measure, SSI/SSDI status at closure, was added to the Projects With Industry indicators in Fiscal Year 1987. This was not measured in the Fiscal Year 1984 Policy Studies Associates study. On the contrary, the SSI/SSDI status was requested on the R-300 Rehabilitation Service Administration report in Fiscal Year 1984 but dropped in the new 911 form in Fiscal Year 1987. This measure has also been dropped for the 1988 Projects With Industry Performance Indicator Report for Fiscal Year 1988. However, in considering the stability of the other state/federal basic Vocational Rehabilitation-110 outcome measures between Fiscal Year 1984 and Fiscal Year 1987, it is important to make at least a descriptive comparison of the SSI/SSDI outcomes.

Of the 938,180 state/federal basic vocational rehabilitation clients served in Fiscal Year 1984, 23,594 were receiving Social Security disability payments (SSI/SSDI) at the time of closure. This figure represented 2.5% of the total clients served. This compares with 3,057 SSI/SSDI clients in Fiscal Year 1987 or 12.1% of

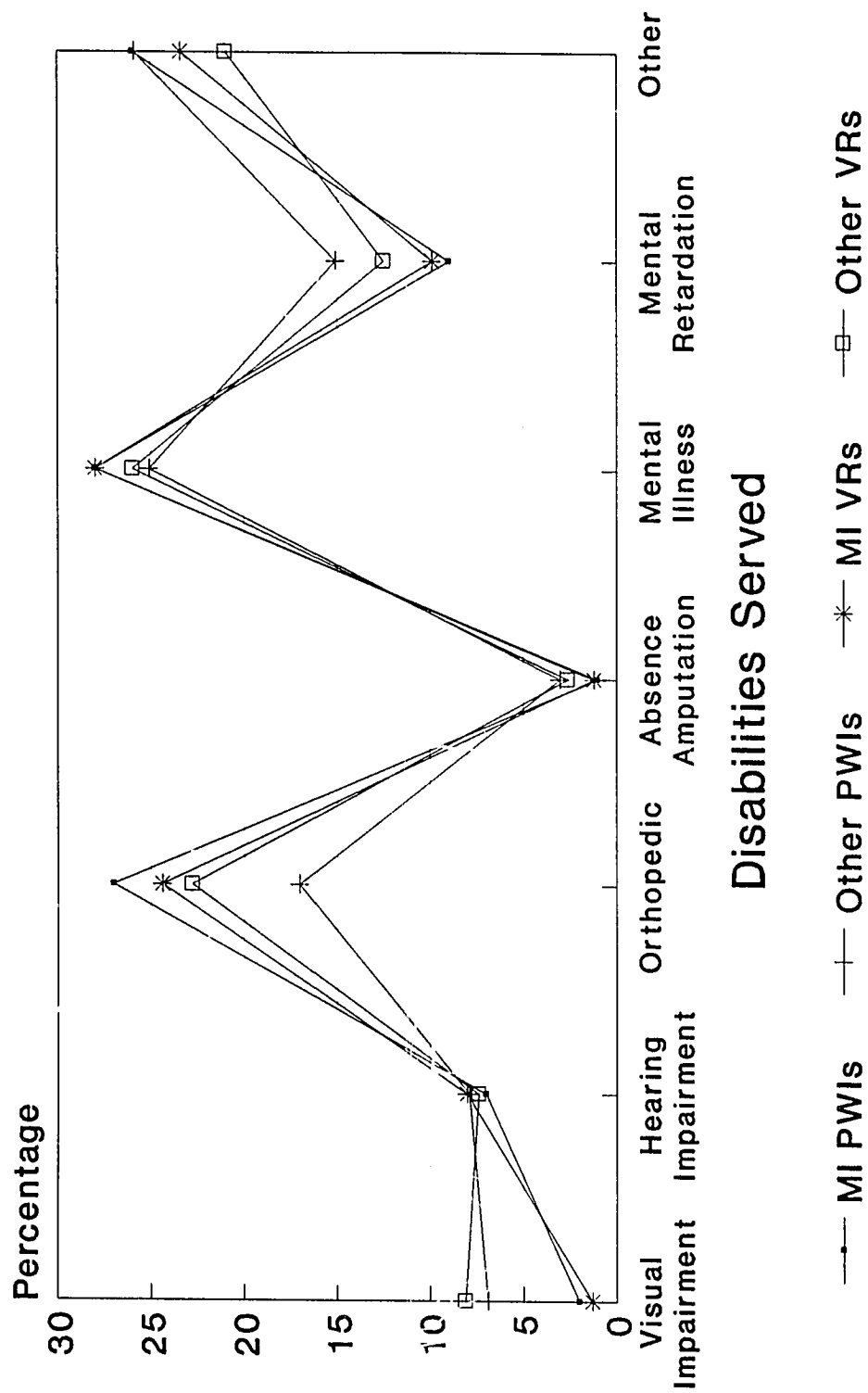


Figure 4. VR-PWI Disability Types

the total Projects With Industry clients served. Thus, it appears that a greater portion of clients who were receiving income support in the form of SSI/SSDI were moved from government support payment role to government tax payment role under Projects With Industry than under the state/federal Vocational Rehabilitation basic program.

As indicated in the literature review, follow-up studies by Berkowitz et al. (1989) for the Vocational Rehabilitation basic program and Kaplan and Hammond (1982) for Projects With Industry show that Projects With Industry clients may also have experienced greater employment longevity than state/ federal Vocational Rehabilitation placed clients.

Quality Outcome Differences

If, indeed, Projects With Industry is demonstrating much higher competitive employment outcomes with a more difficult-to-serve client population, then the next research question becomes what is the quality of those employment outcomes? First, quality employment outcomes can be measured comparing the weekly income levels of the two programs.

Hypothesis 4 is not supported. The extent of the difference in weekly income level for these two employment programs can be seen in Table 5.

Although there is not a great difference in income at the entry level for clients from both programs, it is most interesting to note from Table 5 that the Projects With Industry involvement resulted in

Table 5
State/Federal VR-110 and PWI Weekly Income Levels

Weekly earning change	PWI	VR-110
Fiscal Year 1984		
Pre-entry wages	\$ 20.31	\$ 21.10
Post-placement wages	198.40	162.10
Change in earning	178.09	141.00
Fiscal Year 1987		
Pre-entry wages	\$ 36.00	\$ 29.03
Post-placement wages	200.00	166.51
Change in earning	164.00	137.48
Fiscal Year 1988		
Pre-entry wages	\$ 38.26	\$ 32.60
Post-placement wages	208.09	177.90
Change in earning	169.83	145.30

a \$30.81 to \$37.00 per week greater increase in the earnings level. Thus, a Projects With Industry client placed into his or her first job in Fiscal Year 1987 earned on average \$36.00 more per week (a 26.1% increase) or \$1,872 more the first year of employment than did his or her state agency Vocational Rehabilitation counterpart. This amount is still significantly less than the \$5,794 additional annual

wage earnings that a person might expect to receive on average if he or she was not disabled as discussed on page 87.

It is also necessary to view possible qualitative differences in the distributions of placements into various occupations of these two groups along with the occupational outcomes of other newly hired United States workers who are also entering the labor market at the same time, but without disabilities. The U. S. Bureau of the Census Current Population Report P-23 lays out census data (1989) for about the same time period. By including these data, it is also possible to compare both groups to the occupational entrants of the total U.S. labor force. Table 6 shows these differences in the types of competitive employment positions that are obtained by the different groups.

Hypothesis 5 is not supported. The Projects With Industry client is more likely to find his or her occupational outcome to be in the service, clerical/sales, and the bench work areas (see Table 6). While the state Vocational Rehabilitation client is more likely to be rehabilitated in the more traditional occupations of agriculture, fishing and forestry, and structural work. Thus, the null hypothesis that there is no significant difference in both occupational outcomes and change in earning level can be rejected at the .05 level.

Many economists, Burkhauser (1987), Naisbitt, (1982), R. B. Reich (1987), and others have provided clear directions for the labor market transformation to a service sector economy. Not surprisingly, one of the largest Projects With Industry projects in the

Table 6
VR-110, PWI, and U.S. Labor Force Occupational
Outcomes for New Workers

Type of occupation	New hires					
	PWI		VR-110		U.S. labor	
	No.	%	No.	%	No.	%
Service	4,383	27.2	46,359	23.6	3.7M	19.8
Clerical/sales	4,059	25.3	34,653	17.6	6.1M	19.9
Professional, technical and manager	1,786	11.1	26,456	13.4	3.4M	28.5
Machine trades	1,299	8.1	10,966	5.5	1.6M	12.4
Bench work	974	6.0	11,136	5.3	3.5M	18.7
Agriculture, fish, and forestry	163	1.0	6,708	3.4	0.3M	0.2
Structural work	155	0.9	16,233	8.2	0.6M	0.3
Other	3,247	20.2	43,881	20.2	0.0	0.0

United States is the National Restaurant Association's Projects With Industry. According to Elaine Grossinger Etes (1989), President of the American Hotel, Motel, and Restaurant Association, "the travel-food service industry will be the country's number one employer by 1990" (p. 3). Perhaps, Projects With Industry has by virtue of its closer ties with industry and smaller size been better able to adjust to such changes in the labor market.

Given that there are clear differences in employment outcome levels including income levels and occupational types for Projects With Industry and the state/federal basic Vocational Rehabilitation-110 groups, and that disability types and severity levels are about the same, then other possible demographic differences need to be compared as possible explanations for these differences.

Demographic Labor Force Relationships

If the type and severity of the client's disability do not explain the large outcome differences, thus supporting Hypotheses 4 and 5 in this regard, then perhaps there are other demographic variables that may be affecting the outcome differences. The distribution of the demographic variables of age, race, gender, marital status, and educational level for the two groups in 1984 are shown in Table 7 of this study. Both groups are compared with comparable characteristics for the total United States labor force over 16 years old in Table I of the 1989 Current Population Report (U.S. Bureau of the Census). This labor force consisted of 109 million people for 1984.

Using an SAS general linear models procedure for ANOVA, $F = 3.75$ with the probability of $F = .37$ and R-Square = .95. A Pearson correlation coefficient between the characteristics of the PWI and VR-110 group is $r = .93$, $p = .002$, and PWI and the general U.S. labor force is $r = .81$, probability of $r = .02$, where probability is greater than $|R|$ under $H_0: RHO = 0$ ($N = 7$). Meanwhile, the Pearson correlation coefficient between VR-110 and the general U.S. labor

Table 7
Demographic Variables for VR-110 and PWI Clients
for Fiscal Year 1983

Demographic variables	PWI new hires		VR-110 new hires		Total U.S. labor force
	No.	%	No.	%	%
<u>Age at referral</u>					
24 or less	3,410	20.0	77,249	35.4	22.4
25-34	6,007	35.2	56,825	26.8	28.0
35-44	3,409	19.9	38,429	17.6	22.2
45-54	2,273	13.3	23,888	11.3	14.1
55-64	1,136	6.7	13,541	6.4	11.8
65 and older	811	4.8	5,569	2.6	2.8
Mean age	33.0		32.6		
<u>Race</u>					
White	12,660	78.1	169,880	80.1	79.9
Black	2,759	16.9	38,914	18.4	15.8
Other	811	4.9	3,185	1.5	4.3
<u>Gender</u>					
Male	9,901	60.9	115,070	55.1	55.2
Female	6,330	39.1	93,634	44.9	44.8
<u>Educational level</u>					
Less than 8th grade	1,633	10.0	25,566	12.2	12.8
Grades 9-11	1,299	7.9	45,749	21.8	8.3

Table 7--Continued

Demographic variables	PWI new hires		VR-110 new hires		Total U.S. labor force
	No.	%	No.	%	%
High school graduate/GED	8,442	51.9	106,800	50.8	39.1
13 grades and over	4,870	30.2	31,365	14.9	39.6

Note. U.S. work force data from U.S. Department of Labor, Bureau of Labor Statistics (1986).

force is $r = .87$, $p = .01$, under the same statistical assumption.

Thus, Hypothesis 3 that there are significant differences between the demographic characteristics for the Projects With Industry and state/federal basic Vocational Rehabilitation groups as a whole may be rejected on a national level. There is a strong relationship between the overall worker characteristics of the national VR and the PWI programs. It is also interesting to note that there is less of a relationship between the national PWI program and the overall characteristics of the general labor market than is found between the National VR-110 program and the general U.S. labor market.

It does appear that the basic state/federal Vocational Rehabilitation program serves a greater portion of clients who are 25 years old and younger, and thus are also less educated. Still overall, this difference does prove to be significant. The racial makeup of the Projects With Industry and Vocational Rehabilitation groups are

nearly alike, but show more diversity than the U.S. population of new hires. It appears that both programs are providing support to clients from ethnic groups that are underrepresented in the competitive employment market.

The SAS linear regression coefficients in Table 8 showed a very high degree of overall United States demographic relationships ($r = .92$) between Projects With Industry and Vocational Rehabilitation. Projects With Industry also showed a good overall demographic relationship ($r = .80$) with the general U.S. population. Although the relationship between the overall demographic characteristics for Projects With Industry and the Vocational Rehabilitation program is higher than between these two groups and the U.S. population, the Projects With Industry group showed greater levels of association with the general U.S. population than did the Vocational Rehabilitation client group. Even though the Vocational Rehabilitation group showed less of an overall demographic relationship with the U.S. population ($r = .60$), it is still at a significant positive relationship level. Thus, the demographic outcomes of both the Projects With Industry and state/federal basic Vocational Rehabilitation programs appeared to be representative of the traditional disadvantaged target groups. These programs served more non-white, less educated, and young job seekers on average than those normally represented in the U.S. labor market. This analysis also suggested that job seekers without disabilities are at a statistical advantage in entering the labor market.

Table 8

Linear Regression Relationships Between Primary Characteristics
of Projects With Industry, Vocational Rehabilitation
Referred Workers, and All United States Entry
Level Workers in 1987

	PWI	VR-110	U.S.
PWI	1.00	0.92	0.80
VR-110		1.00	0.60
U.S.			1.00

State-National Level Comparisons

The Kansas Vocational Rehabilitation agency claimed the most Projects With Industry generated placements in Fiscal Year 1988. This state requires its Vocational Rehabilitation counselors to refer 80% of the clients to the state's four Projects With Industry programs. In Fiscal Year 1988 the Kansas Vocational Rehabilitation program reported competitive placements of 1,351 out of 2,532 clients served, or 53%. The Menninger Clinic in Topeka served 325 clients and placed 200 for a 62% placement rate in its two Projects With Industry programs the same fiscal year. The Kansas Elks Projects With Industry program placed an additional 750 Kansas Vocational Rehabilitation clients. Together the two PWIs accounted for 79.5% of all competitive VR placements made in Kansas during Fiscal Year 1988.

Over 40% of all Vocational Rehabilitation placements accounted for in Arkansas, in the 1988 Fiscal Year, were made by the Arkansas

Research and Training Center in Hot Springs, a large Projects With Industry contractor. Another strong Projects With Industry marketing Vocational Rehabilitation state is Connecticut, where virtually all Vocational Rehabilitation placements are now made by the state's Projects With Industry organizations. Under this arrangement, each of the state's four district Vocational Rehabilitation offices has loaned the local Projects With Industry organization its top placement persons to assist the PWI organization with the state's placement efforts.

Conclusion for Section I

The data, thus, appear to provide a clear indication that the client served through the Projects With Industry program is much more likely to obtain employment at a higher entry level than if served by a state/federal basic Vocational Rehabilitation agency. It now remains to attempt to explain why there is such a difference. The literature has suggested that the degree to which each of the programs markets its clients to employers may explain why there are major differences in their output levels. The next section of the findings will explore this assumption by taking a detailed look at marketing practices by both programs in the state of Michigan.

Section II--A State Level Comparative Analysis

Introduction

The question remains: Does the Projects With Industry (PWI) model really make a difference in increasing a vocational rehabilitation client's chances for competitive employment or are there selection biases that may provide other explanations for PWI's higher placement rates? If PWI does make a difference as indicated in Section I, then why is this so? In this section, several possible explanations will be tested with clients and employers from the state of Michigan.

Section I provided a review of the findings regarding a comparison on a national level of the two programs of interest. This section will offer an in-depth comparison of the two programs on a selected state level.

Comparative Placement Rates in Michigan

The Michigan Vocational Rehabilitation agency, Michigan Rehabilitation Services (MRS) reported placing 7,005 of the 17,082 clients it served in 1987--a 38% competitive placement rate. This is twice the national average of 19%.

In comparison, the two Michigan PWI programs had a 78% combined competitive placement rate the same year. The national PWI average was 59% in fiscal Year 1987.

Although the Michigan Rehabilitation Services (MRS) program shows higher levels of placement than the national state agency average, it was selected for the marketing analysis because it was also the site of the Lewis (1988) study.

Hypothesis 1 is supported on both the national and state levels that there is a significant difference in the proportion of placements between clients who are placed directly by state/federal basic vocational programs and those clients served by federally funded Projects With Industry programs. Based upon the magnitude of the differences appearing on both the national (Table 3, i.e., 1987; PWI = 59%, VR = 15%) and also on the state level, the PWI programs show much higher competitive placement rates (1987; 78% versus 38%). Such differences in competitive placement outcomes also appear to be consistent from year to year (see Table 3 and Figure 3).

Demographics, Disabilities, and Placement Outcomes

An analysis of variance (ANOVA) comparing MRS client characteristics and primary disability types with the data regarding client characteristics and disability types from Michigan's two PWIs, from all other PWIs, and from all other state vocational rehabilitation programs shows few differences overall ($F = 2,669$, significance of $F < .01$); however, some important individual demographic differences must be noted (see Tables 9 and 10). It does appear that the Michigan PWI programs are serving a larger population of younger clients, many of whom are white males. Hypothesis 2 is not supported on the state level, as there are large differences in the individual client

Table 9
Demographic Characteristics of Selected Populations

	PWI new hires		VR-110 new hires		Total U.S. labor force
	MI	All others	MI	All others	%
<u>Age at referral</u>					
Mean age	27.1	33.0	32.4	32.6	34.6
<u>Race</u>					
White	91.8%	77.1%	80.0%	79.1%	78.1%
Black	7.6	19.5	19.4	19.4	11.7
Other	0.6	3.4	0.6	1.5	10.2
<u>Gender</u>					
Male	85.3%	60.9%	61.3%	55.1%	55.2%
Female	14.7	39.1	38.7	44.9	44.8
<u>Educational level</u>					
Less than 8th grade	1.5%	10.0%	4.9%	12.2%	12.8%
Grade 9-11	13.3	7.9	23.9	21.8	8.3
High school graduate/GED	59.0	51.9	50.1	50.8	39.1
13 grades and over	26.2	30.2	21.1	14.9	39.9
Mean grades completed	N/A	11.9	N/A	11.6	11.8

Note. Data are from Current Population Survey (1989); MRS PE Unit Report (1988); Rehabilitation Services Administration Caseload Statistics, State Vocational Rehabilitation Agencies, Fiscal Years 1983-1988; Rehabilitation Services Administration; and PWI Performance Indicator.

Table 10
Primary Disability Types and Levels

Disability variables	MI PWIs	Other PWIs	MI VRs	Other VRs
	%	%	%	%
<u>Severity level</u>				
Severely disabled	57.0	64.0	43.0	57.4
<u>Primary disability</u>				
Visual impairments	2.1	6.9	1.2	8.1
Hearing impairments	7.0	7.9	8.0	7.2
Orthopedic	26.9	17.0	24.1	22.8
Absence/amputation	1.0	3.0	1.2	2.6
Mental illness	28.1	25.1	28.0	26.0
Mental retardation	9.0	15.1	9.6	12.3
Other	25.9	25.0	23.1	21.0

characteristics (race, sex, education, and age) between those who are placed directly by Michigan's basic Vocational Rehabilitation programs and those clients identified as served by Michigan's federally funded Projects With Industry programs.

It also appears from these data that both of the Michigan programs are serving more persons with orthopedic and emotional disabilities, and fewer with mental retardation and visual impairments, than other rehabilitation programs in the nation. A possible explanation for these demographic differences is that Michigan is a heavy

industrial state with a well supported separate agency, the Michigan Commission for the Blind, to provide separate services for persons with visual impairments.

Table 10 also shows a breakdown comparison by type of major disability and reported severity level. A comparison of the severity rates between the state agency MRS and its two PWIs in Fiscal Year 1987 shows a 43% severity level for Michigan Rehabilitation Services and a 53% level for Michigan's PWIs. Thus, though Michigan's PWI programs are serving more young white males, these clients also tend to be classified as more severely disabled by federal definition.

Hypothesis 3 is also not supported as there are large differences in the levels (1988, 73% to 64%) or types of disabilities (see Table 9) between clients who are placed directly by both the national state/federal basic Vocational Rehabilitation programs and those clients served by federally funded Projects With Industry programs. This is also true to a greater degree with the two Michigan samples. Though an ANOVA shows that overall there are not significant differences in the served client's demographic and disability characteristics, distinct differences between the two groups were found. Since total populations were included, inferential statistical tests were not needed. Yet, several questions remain before the relative importance of these two hypotheses can be ascertained. Unless some individual relevancy measure can be found, it is difficult not to suggest that these disabilities and characteristics may be canceling each other out. It may be that older, black

females with nonsevere visual impairments are just as difficult to place into competitive employment as younger, white males with severe orthopedic disabilities. There are too many subjective intervening variables to allow for conclusive causal relationships between demographic characteristics and placement rates.

Even if objective and valid demographic and disability measures could be obtained, it would still be difficult to determine whether programs were responding to the real demands of the employer marketplace or simply preselecting those rehabilitation clients that may reflect the biases of the employment marketplace.

Hypotheses 4 and 5 have been shown not to be supported. Population differences seem to have some bearing on income levels and occupational preferences. PWI clients received significantly higher starting wages and were identified with more technical, professional, and service occupations than were clients supported only through the Vocational Rehabilitation program.

Michigan's Projects With Industry Programs

In Michigan there are two federally funded Projects With Industry programs. The Project National Industrial Center for Handicapped Employment (NICHE) is headquartered in a large state vocational rehabilitation supported comprehensive training center known as the State Technical Institute and Rehabilitation Center (STIRC). Project Say Yes to Networking Energies and Responsiveness for Gainful Efficient Employment (SYNERGEE) has locations in Battle Creek, Ann Arbor, Saginaw, Traverse City, and Holland, Michigan. The

Holland site was not selected because it was in its initial year of operation. Project NICHE also operates a transitional outreach program, the Pine Lake project for persons with primarily developmental disabilities.

The NICHE project provides program development, employer development, and direct placement support to the STIRC rehabilitation training center. About 95% of STIRCs clients are referred from Michigan's 34 local MRS district offices; thus, NICHE serves a variety of persons with disabilities. Project NICHE and STIRC are in a rural area and lack provision for married housing or day care. A preponderance of white males, therefore, skews the demographic characteristics for this study.

For Fiscal Year 1988, 61% of the clients from this Projects With Industry program were persons classified as having severe disabilities, compared to 43% of the clients served by Michigan Rehabilitation Services. The Pine Lake project used 65 different employer sites scattered throughout the state of Michigan and all of its clients were classified as severely disabled.

Project SYNERGEE serves primarily recent graduates of special education programs who are entering the job market for the first time. Both Projects With Industry programs began in 1983.

Michigan Rehabilitation Services' Marketing Study

The Lewis (1988) study provides a means to view possible differences between the state Vocational Rehabilitation agency and Michigan Projects With Industry programs. In the Lewis study, a

telephone survey was conducted with a sample of 320 employers who had used MRS as a placement source within the last 2 years. The study was designed to represent each area of the state in proportion to the number of employers located within it. The study was further divided into two groups, small employers (with 50-200 employees) and large employers with 200 employees or more. Lewis found no significant differences in the decision factors for the large and small employers. Thirty personal interviews lasting 1 to 3 hours were held with a cross section of employers throughout the state. The interviews were conducted to elicit information about employer's hiring practices. This information was used to design the employer survey research factors. The interviews helped to target the most important factors in the telephone survey, devise specific questions, and insure that employers interpreted the questions and instructions in a consistent manner.

According to Lewis (1988), "the employer interviews confirmed that most employers use placement or broker organizations to fill job vacancies" (p. 1). In Lewis's pilot study, Michigan Rehabilitation Services was only known directly by 3 of the 30 randomly selected employers for a 10% direct name recognition level; yet, the state rehabilitation agency was known by other names, such as, Vocational Rehabilitation or Bureau of Rehabilitation.

Four focus groups totaling 34 MRS counselors and covering each area of the state were conducted. These small group discussions were established to gain insight into counselors' perceptions of client and employer needs, and of their own placement practices.

Lewis (1988) found in these focus groups that many MRS counselors "feel ill-prepared to perform the placement function" due to their workload and/or lack of training. They noted, according to Lewis, that:

placement is very numbers driven; a counselor's performance depends only on their ability to obtain thirty-six "26s" annually. Many counselors said that they did not believe that placement is one of the agency's big priorities. Most use a one-to-one sales approach to placement: one job ready client--one job--one employer. Few have developed long term relationships with employers. (p. 2)

In an analysis of 1,900 MRS closed cases from Fiscal Years 1984-86, multiple placements were obtained with only 103 of 1,378 employers. Lewis (1988) also reported that:

Multiple placements ranged from two to twenty-five. The mean was 3.9 and the mode was 2. This . . . skewed distribution suggests that most of the time, "multiple placement" refers to two placements. Where a large number of multiple placements was achieved, the MRS representative had established an ongoing relationship with the employer. (p. 3)

Thus, only 7% of employers surveyed engaged in the repeat business, which is often considered a measure of marketing success. From the Lewis (1988) study, it can be concluded that MRS, the state Vocational Rehabilitation agency, engaged in a "sales approach" orientation to the placement of persons with disabilities. Still, in fairness to the Michigan agency, Lewis was contracted to uncover deficiencies in the placement process, and steps are being taken to correct these deficiencies. Michigan Rehabilitation Services has chosen to train each of its local MRS counselors to market his or her clients. Only time will tell how successfully the leadership can change the agency into a marketing organization. Still, it is

interesting that MRS is using the state's PWIs as models to follow.

Lewis (1988) also found a direct inverse relationship in this study between what the MRS focus group counselors viewed as important factors in building a relationship with employers and what employers viewed as important. The following graphs and charts provide details of the Lewis survey results in comparison to the findings in this study. The Lewis study was funded with a \$25,000 contract from MRS, while this research received no outside funding and thus was limited in its methodological procedures. The Lewis study contacted 320 random subjects by telephone, while this study relied upon a mail survey with extensive follow-up. The mailings were sent under Western Michigan University's Center for Social Research stationery and returned directly to the center to minimize response bias.

The return rate of 44% for this study compared favorably with similar mail survey studies. A total of 312 employers and Business Advisory Council (BAC) members were randomly selected from lists provided by each of six PWI sites involved. These lists were composed of all current BAC members and all employers of the project's clients during the 1989 fiscal year. A total of 21 surveys were returned as either blank or as refused mail delivery and 126 surveys were returned completed. Distribution of the returns was as shown in Table 11.

Table 11
Rate of Surveys Returned per Program

Name of project	Surveys returned/sent	Rate of return
Project NICHE		
STIRC	66/145	.46
Pine Lake	21/29	.72
Project SYNERGEE		
Ann Arbor	16/33	.48
Traverse Bay	7/21	.33
Battle Creek	20/28	.71
Saginaw	12/36	.33
Total	142/292	.48
Less duplications and invalid surveys	126/292	.43

Michigan's PWI Marketing Survey

For the Michigan PWI survey, two mail solicitations and one telephone solicitation were used to obtain the survey data. Table 12 indicates the rate of return from the different PWI programs and their individual program sections. The overall return rate was 43%. Each of the returns was coded to test for differences between response rate and number of solicitations by the researcher. Pearson product-moment correlations between the survey's 80 variables and the survey's return date were obtained. These correlations showed

that only size of company ($r = .24$),* disabled family member ($r = .22$),* and experience with persons with disabilities ($r = .23$)* were significantly higher for the early returns that required fewer solicitations on the part of the researcher. Thus, the results of the procrastinators and nonrespondents appear consistent with the perceptions of those who responded early. Response bias among the groups, therefore, seems to be minimal. Only the overall Michigan PWI program and the state's vocational rehabilitation program, the Michigan Rehabilitation Services (MRS) program's survey results will be compared on the four hypotheses. Before the two sample groups can be examined for differences, however, it must be understood that these two groups are from the same population of Michigan employers who have considered hiring persons with disabilities.

Employer Characteristics

Since this portion of the study assumes treatment differences as the major cause for outcome differences, it is necessary to look at possible demographic differences among the employers of these clients. The average size of the companies in the two survey groups appears comparable with 2,646 employees in the PWI group and 2,499 in the MRS group. Also, the number of years that the employers had worked for their companies was similar; 8.16 years for MRS and 10.07 for the PWI group. When asked if the organization currently employs persons with disabilities, 70.6% of the MRS sample group said yes

*Significant at .05 level.

compared with 71.7% of the PWI group. Both groups of employers reported that they had some college education (MRS 3.6 years and PWI 3.7 years) and were found to be about the same mean age (MRS 42.0 and PWI 44.4). Thus, a chi square value of 22 shows no significant differences at the .05 level in the demographic characteristics of the two groups.

The employer perception factors were identified through lengthy personal open-ended interviews. In the Lewis (1988) study, 50 randomly selected Michigan employers were asked about factors that they "considered to be the most important in deciding to start a relationship with an organization that helps you find new employees." They were also asked in the Lewis study to identify "service factors that [they] may consider important in an organization that represents applicants with a handicap." In this survey, the term "handicap" was defined as "applicants who are deaf, blind, mildly retarded, or have an emotional or physical handicapping condition."

In both studies the respondents were asked to rate the importance and the performance of the service factors that were identified in the Lewis (1988) study. Lewis divided the state of Michigan into four areas, namely, Wayne area (Detroit), southern area, eastern area, and northwest area. She found no significant differences among these areas of the state.

Five different perception factors were identified in the Lewis (1988) study, including Relationship Management, Handicapper Specific, Screening, Supply, and Training. Each factor element was rated for importance in deciding to hire a person for a position

with their company. Employers were also asked how well representatives of the organization performed on each of the rated factor elements.

Independent Variables: Perceptual Differences

Reliability Analysis

An alpha split half reliability analysis was run on the factor elements for both the Importance and Performance scales. The PWI group of importance and performance items had a reliability alpha coefficient of .91. The alpha coefficient levels for MRS were .90 for the importance and performance survey items. These high alpha scores provided confidence to proceed with additional statistical testing of the survey instruments' results with the PWI employer sample.

Factor Elements

The following is a list of elements contained in each of the five factors that Lewis (1988) identified:

Relationship Management elements:

1. Ability to conduct business with the same individual.
2. Ability to contact the placement representative.
3. The organization uses routine procedures.
4. The organization is predictable in methods.
5. The representative is courteous and helpful.
6. The representative is genuinely interested in satisfying

the organization's needs.

7. There is follow-up on each placement.
8. A trial work period is provided.
9. The representative is dependable and eager.

Handicapper Specific elements:

1. Assists in preparing managers to work with persons with disabilities (disability awareness).

2. Performs job analysis.
3. Determines architectural barriers.
4. Determines whether adaptive equipment is needed.
5. Provides job coaches.
6. Handles all paper work needed for federal tax credit.
7. Handles all paper work related to second injury certification.

8. Helps to meet the federal affirmative action compliance requirements.

9. Determines how job duties or environment can be restructured.

Screening elements:

1. Applicants are prescreened.
2. Conducts job analyses to determine necessary skills.
3. Solicits input for skill assessment procedures.
4. Accepts input regarding readiness of client to work.
5. Evaluates skills before recommending applicants.
6. Reduces organization's risk of bad hiring decisions.
7. Reduces organization's workload.

Supply elements:

1. Reliable source of qualified candidates.
2. Ample supply of qualified candidates.
3. Advance notice when unable to meet manpower needs.
4. Ready supply of temporaries or interns.

Training elements:

1. Solicits input for training program content.
2. Training programs equip applicants with specific skills.

Hypothesis 6 is not supported. Significant differences in employer perceptions of the Michigan Projects With Industry and the Michigan Rehabilitation Services programs were found in the two randomly selected groups of employers.

Comparing Factor Structures

Factor analyses were conducted for both the PWI and MRS sample employer data. The results using both the principal component and maximum likelihood extraction methods were mixed for the two groups. The same was true when Varimax and Oblimin rotations were tried (Appendix F).

According to Kim and Mueller (1978), one use of "confirmatory factor analysis is comparing factor structures across several groups" (p. 53). One of the major assumptions of this study is that the Michigan employer sample groups developed different perceptions and expectations of the competitive job placement services of these two programs as a result of exposure to the additional treatment provided by Michigan Projects With Industry programs. Therefore, it

is not surprising that some of the factor structures are the same and others are different. One would expect that these programs which have similar clientele and functions would have similar factors, such as the Handicapper Specific factors. The dissimilarities of many of the factors seem to indicate the validity of the assumption that the two populations of employers have developed different perceptions and expectations of the competitive job placement services of the two Michigan public vocational rehabilitation programs.

Relationship Management Factors

The Lewis (1988) Relationship Management elements summarize the behaviors and attitudes that the focus group of employers identified as important to the employing organization when it is deciding to do business with an organization that assists persons with disabilities to find employment. Table 12 is a comparison chart of the mean important scores of Lewis's Relationship Management factors as they were rated by Michigan employers in both research studies. Only a comparison of the importance ratings are shown in Table 12 and performance mean rating scores for the two sample groups are shown in Table 13. MRS received higher ratings on two of the nine Relationship Management factor elements, "ability to contact the same individual" (MRS 7.6 versus PWI 7.1) and "placement representative is dependable and eager" (8.7 versus 8.4).

Four elements received significantly different importance ratings by the two employer samples. For PWI, they included: "ability to contact the placement representative" (8.9 versus 8.4),

Table 12
A Comparison of Relationship Management
PWI and MRS Importance t-Test Values

Element	PWI importance		MRS importance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Same individual	7.1	2.2	7.6	1.8	.020*
2. Ability to contact	8.9	1.3	8.4	2.1	.005*
3. Routine procedures	8.3	6.7	8.3	1.7	.880
4. Predictable in methods	8.8	6.6	8.4	1.8	.420
5. Courteous and helpful	9.1	7.4	8.9	1.5	.770
6. Genuinely interested	9.3	7.5	9.0	1.4	.690
7. Follow-up	8.9	6.7	6.9	2.4	.004*
8. Trial work period	8.7	6.7	5.6	3.0	.000*
9. Dependable and eager	8.4	1.6	8.7	1.7	.070

*Significant at the .05 level.

"follow-up" (8.9 versus 6.9), and "providing trial work periods" (8.7 versus 5.6). PWI employers had significantly higher expectation levels for these three behavioral relationship management activities than the MRS sample employer group. Meanwhile the MRS employers perceived that it was more important to "conduct business with the same individual" (7.6 versus 7.1). Responses to the remaining Relationship Management elements were largely consistent for both sample populations of employers. The Relationship Management

Table 13
A Comparison of Relationship Management
PWI and MRS Performance t-Test Values

Element	PWI performance		MRS performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Same individual	8.4	1.7	7.9	2.2	.070
2. Ability to contact	8.5	1.8	8.2	2.1	.100
3. Routine procedures	7.9	2.0	8.3	1.8	.100
4. Predictable in methods	8.3	1.8	8.5	1.7	.560
5. Courteous and helpful	8.7	1.7	9.0	1.5	.590
6. Genuinely interested	8.8	1.6	8.4	1.7	.210
7. Follow-up	8.2	1.9	6.6	3.0	.000*
8. Trial work period	7.7	2.2	6.2	3.5	.000*
9. Dependable and eager	8.5	1.9	8.7	2.2	.900

*Significant at the .05 level.

factor includes the two elements considered most important in both programs, "the representative is courteous and helpful" (PWI 9.1 and MRS 8.9) and "the representative is genuinely interested in satisfying the organization's needs" (PWI 9.3 and MRS 9.0). Table 13 lists the employer performance ratings of the Relationship Management elements for the two comparison groups, which rated these two same attitudinal elements as the highest (PWI 8.7 and MRS 9.0) for "courteous and helpful" and (PWI 8.8 and MRS 8.4) for "genuinely

interested in satisfying the organization's needs."

Like the Relationship Management importance scores, only follow-up (PWI 8.2 versus MRS 6.6) and trial work elements (PWI 7.7 and MRS 6.2) of the Relationship Management performance scores prove on a two-tailed student t test to be significantly different at the .05 level. When compared with all of the mean factors, the Relationship Management factors included the highest importance and performance rating scores. Top rated importance elements included that the placement representative is "courteous and helpful" (PWI 9.1, MRS 8.9) and that the "representative is genuinely interested in satisfying the organization's needs" (PWI 9.3 and MRS 9.0).

In summary, the attitude elements pertaining to managing the relationship were considered most important on measures of employer expectations and organizational performance for both rehabilitation programs. When an employer expected less follow-up (6.9) and trial work (5.6) (as employers did for MRS) then the program delivered less in terms of performance (6.6 and 6.2). Two-tailed student t tests were also run on both sample groups. Table 14 shows the MRS Relationship Management mean ratings only with probability levels.

From Table 14, it appears that MRS is putting more effort into the "ability to conduct business with the same individual" (importance 7.6, performance 7.9) than may be necessary. However, it also appears that there is a significant difference at the .05 level in what the employers expect in terms of both follow-up (6.9 and 6.6) and genuine interest in satisfying their needs (9.0 and 8.7) and in how MRS is performing on these factors. These results would suggest

Table 14
A Comparison of Relationship Management MRS
Importance and Performance t-Test Values

Element	MRS importance		MRS performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Same individual	7.6	2.4	7.9	2.3	.010*
2. Ability to contact	8.4	2.0	8.6	1.8	.790
3. Routine procedures	8.3	1.7	8.4	1.8	.290
4. Predictable in methods	8.4	1.8	8.5	1.7	.170
5. Courteous and helpful	8.9	1.5	9.0	1.5	.240
6. Genuinely interested	9.0	1.4	8.7	1.7	.040*
7. Follow-up	6.9	2.4	6.6	3.0	.030*
8. Trial work period	5.6	3.0	6.2	3.5	.060
9. Dependable and eager	8.7	1.7	8.7	1.9	.760

*Significant at the .05 level.

putting more effort into follow-up and into changing employers' perceptions regarding the program's genuine interest in satisfying the needs of employing companies. Also, it may not be as important for the same MRS representative to work with the same employing organization all of the time. Perhaps a placement specialist could work with the employer first to develop the job that a rehabilitation specialist could then fill. The office supervisor could follow up on the placement because the concept that one person must do

every aspect of the placement process is not supported by this research.

In viewing the PWI Relationship Management results, a similar statement might be made. From Table 15, it appears that the PWI operators are putting significantly more effort than necessary into their ability to conduct business with the same individual (7.1 versus 8.3) when what may be needed more is just the ability to contact any placement representative in the first place (8.9 versus 8.5). Also, the survey indicates that the PWI employers' sample would appreciate a greater effort (8.7 versus 7.8) by the PWI operators to provide trial work periods for the handicapped employees they are being asked to hire. This is a structural problem for the PWI operators because they often do not have direct access to on-the-job training monies that the MRS counselors are more likely to provide. Thus, it may be suggested that PWI managers include on-the-job training monies in their annual budget requests.

It could also be construed from the Relationship Management elements that the program's past performance shaped the expectation levels of the employer group. Rather than debate what came first; it can be reported in the case of Relationship Management factors that the formula:

$$\text{Performance} = \text{Expectations}$$

and:

$$\text{Expectations} = \text{Performance}$$

are true in five out of nine employer rated elements for both MRS and Michigan's PWI organizations.

Table 15
A Comparison of Relationship Management PWI
Importance and Performance t-Test Values

Element	PWI importance		PWI performance		2-tail prob.
	Mean	SD	Mean	SD	
1. Same individual	7.1	2.2	8.3	1.7	.000*
2. Ability to contact	8.9	1.4	8.5	1.8	.003*
3. Routine procedures	8.3	6.7	7.9	2.0	.960
4. Predictable in methods	8.8	6.5	8.3	1.8	.980
5. Courteous and helpful	9.1	7.4	8.7	1.7	.300
6. Genuinely interested	9.2	7.5	8.8	1.6	.680
7. Follow-up	8.9	6.7	8.2	1.9	.380
8. Trial work period	8.7	6.7	7.8	2.2	.030*
9. Dependable and eager	8.4	1.6	8.5	1.9	.790

*Significant at the .05 level.

In summary, the PWIs had higher expectation scores, higher performance scores, and less variability between the expectation and performance scores for more of the Relationship Management elements than did MRS; but as illustrated in the next part of the study, the opposite is pretty much true for the Handicapper Specific elements.

Factors Specific to Persons With Disabilities

The Lewis (1988) study also identified nine elements that could be specifically important in hiring persons with disabilities. She labeled these elements as Handicapper Specific factors. These were described as elements that would not be issues in hiring persons without a disability. They are listed as follows with their mean importance and performance levels for both groups. Table 16 is a comparison of importance ratings for both sample groups.

In all nine elements of the Handicapper Specific factor, the mean PWI importance ratings are higher or equal to the MRS ratings, but not at a significant level. Thus, it might be said that the PWI employers have a slight tendency to have higher expectations when dealing with those employment elements that are unique to the employment of persons with disabilities for the PWI organizations than do the MRS employers for the MRS organization on these same Handicapper Specific elements.

However, when a comparison is made of the corresponding performance levels, a different picture emerges as shown in Table 17. A total of six of the nine Handicapper Specific performance elements were rated higher for MRS than for the PWI organizations, but only "handles all paper work related to second injury certification" (PWI 6.9 and MRS 8.6) is significantly higher for MRS.

Thus, there appears to be less consistency between the importance and performance ratings for both groups within the Handicapper Specific elements than was found within the Relationship Management

Table 16
A Comparison of PWI and MRS Handicapper
Specific Importance t-Test Values

Element	PWI importance		MRS importance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Disability awareness	8.3	7.9	7.6	2.4	.430
2. Analyzes job components	8.1	1.9	8.1	2.3	.950
3. Determines architectural barriers	6.9	2.8	6.2	3.0	.360
4. Adaptive equipment	7.9	2.0	7.7	2.4	.830
5. Provides job coaches	7.9	2.3	7.6	2.4	.490
6. Federal tax credits	8.1	8.0	7.5	3.0	.470
7. Second injury cert.	7.7	2.7	7.4	3.0	.500
8. Affirmative action compliance requirements	7.9	2.6	7.3	2.7	.620
9. Job duties restructured	7.5	2.1	7.5	2.4	.450

elements. Tables 18 and 19 confirm this suspicion. Even though the PWI employers find many of the Handicapper Specific elements to be more important than MRS employers might, MRS received higher performance ratings on these elements. This suggests that PWI operators need more emphasis on and training for these Handicapper Specific areas or they should call upon their MRS peers to assist them with expertise in Handicapper Specific cases.

Table 17
A Comparison of PWI and MRS Handicapper
Specific Performance t-Test Values

Element	PWI performance		MRS performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Disability awareness	7.1	2.3	6.7	2.7	.200
2. Analyzes job components	7.0	2.6	7.7	2.1	.750
3. Determines architectural barriers	6.7	3.2	6.1	3.4	.490
4. Adaptive equipment	7.9	2.0	7.7	2.4	.830
5. Provides job coaches	6.9	2.9	8.3	2.7	.910
6. Federal tax credits	6.6	2.8	8.1	2.2	.010*
7. Second injury cert.	6.9	2.8	8.6	2.2	.010*
8. Affirmative action compliance requirements	7.0	2.6	7.9	2.7	.460
9. Job duties restructured	6.9	2.2	7.3	2.1	.200

*Significant at the .05 level.

With the exception of providing assistance with the identification of architectural barriers, all of the other eight Handicapper Specific factor elements were found to be significantly different at least at the .05 level between what the employer expected and how the PWI programs performed on these factor elements. In all of the elements the PWI employers' expectation level was higher than the level of perceived performance by the Michigan PWI programs as a

Table 18

A Comparison of Handicapper Specific PWI Importance
and Performance t-Test Values

Element	PWI importance		PWI performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Disability awareness	8.3	2.4	7.1	2.3	.020*
2. Analyzes job components	8.2	1.5	7.0	2.5	.000*
3. Determines architectural barriers	6.9	2.7	6.7	2.5	.620
4. Adaptive equipment	7.9	1.8	7.2	2.1	.001*
5. Provides job coaches	7.9	2.1	6.9	2.9	.000*
6. Federal tax credits	8.1	2.5	6.6	2.7	.008*
7. Second injury cert.	7.7	2.5	6.9	2.8	.005*
8. Affirmative action compliance requirements	7.9	2.7	7.0	2.6	.010*
9. Job duties restructured	7.5	7.6	6.9	2.2	.040*

*Significant at the .05 level.

whole. This degree of difference in the Handicapper Specific factors seems to indicate a need for the PWI placement specialist to improve these elements through training, better management, or contractual services.

There is a different story when the importance and performance Handicapper Specific factor elements are compared using a student t test for the MRS sample of employers as shown in Table 19. The

Table 19

A Comparison of Handicapper Specific MRS Importance
and Performance t-Test Values

Element	MRS importance		MRS performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Disability awareness	7.6	1.8	6.7	2.7	.002*
2. Analyzes job components	8.0	1.8	7.7	2.1	.110
3. Determines architectural barriers	6.2	3.2	6.7	3.4	.490
4. Adaptive equipment	7.7	1.6	6.9	2.7	.001*
5. Provides job coaches	7.3	2.3	8.3	2.7	.910
6. Federal tax credits	7.1	2.7	8.1	2.7	.440
7. Second injury cert.	7.1	2.8	8.6	2.2	.030*
8. Affirmative action compliance requirements	7.3	2.6	7.9	2.7	.580
9. Job duties restructured	7.5	1.5	7.3	2.1	.020*

*Significant at the .05 level.

results are mixed with four of the nine elements proving to be significantly different in both directions. Like the PWI sample, the MRS sample of employers also had significantly higher expectations in the elements: "assisting in preparing managers to work with persons with disabilities," "determining if adaptive equipment is needed," and "providing assistance in restructuring the job." But MRS significantly outperformed the level of employer expectations on

"handling all paperwork related to second injury certifications." In four of the nine elements rated, MRS outperformed the employer's expectation level including providing help with second injury certifications, targeted tax credits, federal compliance requirements, and providing job coaches. The experience and organizational structure of the state vocational rehabilitation agency in its concern for paper work and compliance procedures shows in these results. Also, there seems to be a misunderstanding between the MRS organization and the Michigan employers using their services as to the role and importance of job coaches.

These results suggest that both organizations could improve upon their level of service in Handicapper Specific factor areas. But it is shown here to be more of a problem for the PWI programs. Perhaps these Handicapper Specific results suggest areas of better cooperation between the programs, as well as greater training emphasis especially for the PWI operators.

Screening Factors

The next set of factor elements compared are the seven Screening factor elements as illustrated. From Table 20, it appears that the PWI employer importance ratings were equal to or significantly higher than the corresponding MRS employer ratings.

From Table 21, the Screening performance levels for the PWI group elements also prove to be equal to or significantly higher for PWI than for the MRS employer ratings. Thus, the PWI programs had significantly higher importance scores in three of the seven

Table 20
A Comparison of PWI and MRS Importance
Screening t-Test Values

Element	PWI importance		MRS importance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Prescreened	8.6	1.3	8.5	1.6	.820
2. Job analyses	6.9	2.3	5.5	2.7	.000*
3. Input for skill assessment	7.8	1.8	6.6	2.5	.000*
4. Input regarding readiness work	8.2	1.5	7.4	2.5	.000*
5. Evaluates skills	8.0	1.7	7.7	2.1	.600
6. Reduces risk of bad hiring decisions	7.7	2.2	7.5	2.5	.980
7. Reduces workload	7.4	2.2	7.9	2.0	.080

*Significant at the .05 level.

importance Screening elements and four of the seven performance levels as measured by the student t test at the .05 level. PWI received significantly higher importance ratings on "conducting job analyses to determine necessary skills" (PWI 6.9 and MRS 5.5); "soliciting input for skill assessment procedures" (PWI 7.8 and MRS 6.5); "accepting input regarding readiness of client to work" (PWI 8.4 and MRS 7.5). These three important elements were joined by "reducing organization risk of a bad decision" (PWI 7.4 and MRS 7.9) in the significantly higher PWI importance rating. There were no

Table 21
A Comparison of PWI and MRS Performance
Screening t-Test Values

Element	PWI performance		MRS performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Prescreened	7.9	2.0	7.7	2.0	.230
2. Job analyses	7.6	2.1	6.8	2.7	.030*
3. Input for skill assessment	7.8	2.3	6.5	3.0	.001*
4. Input regarding readiness work	8.4	2.1	7.5	2.7	.003*
5. Evaluates skills	7.5	2.2	7.1	2.2	.390
6. Reduces risk of bad hiring decisions	7.4	2.5	6.4	2.7	.002*
7. Reduces workload	7.6	2.3	7.1	2.5	.360

*Significant at the .05 level.

Screening scores that proved significantly higher for the MRS group within the Screening factor.

Table 22 is a comparison of the MRS importance Screening scores to the MRS Screening performance scores. This provides an opportunity to view how well the organization's performance meets the employer's expectations. There is a significant mismatch between the employer's expectation level and the program's rated level of performance shown (at least at the .05 level) for six of the seven MRS Screening elements. Only on the element "conducting job analysis"

does the MRS program score a significantly higher rating than the employer's expectation level. All Screening levels excepting "conducting job analysis" and "accepting input regarding readiness of applicant to work" (where performance scores matched the employer expectation) failed to be satisfied.

Table 22
A Comparison of MRS Importance and Performance
Screening t-Test Values

Element	MRS importance		MRS performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Prescreened	8.5	1.7	7.7	2.1	.000*
2. Job analyses	5.5	2.6	6.8	2.6	.020*
3. Input for skill assessment	7.4	2.2	6.2	2.7	.009*
4. Input regarding readiness work	7.4	2.3	7.5	2.3	.470
5. Evaluates skills	7.7	2.0	7.1	2.3	.000*
6. Reduces risk of bad hiring decisions	7.6	2.4	6.4	2.6	.000*
7. Reduces workload	7.8	2.2	7.1	2.4	.000*

*Significant at the .05 level.

In comparison, the PWI programs were able to meet the expectation levels of their employers in six of the seven Screening elements as shown in Table 23. Only in the area of prescreening did

the employers have significantly higher expectation levels than perceived performance levels for PWI programs.

Table 23
A Comparison of PWI Importance and Performance
Screening t-Test Values

Element	PWI importance		PWI performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
1. Prescreened	8.6	1.3	7.9	2.1	.002*
2. Job analyses	6.9	2.1	7.6	2.1	.260
3. Input for skill assessment	7.8	1.5	7.9	2.3	.450
4. Input regarding readiness work	8.2	1.2	8.4	2.0	.710
5. Evaluates skills	8.0	1.7	7.5	2.2	.070
6. Reduces risk of bad hiring decisions	7.7	2.1	7.5	2.4	.430
7. Reduces workload	7.4	2.0	7.5	2.1	.820

*Significant at the .05 level.

As a whole in the Screening factor, the PWI sample achieved significantly higher performance levels than did MRS, but employers also showed significantly higher expectations for these factor elements. Again it appears that either expectations are driving the organization's performance levels or the organization's performance level has shaped the expectations and perceptions of the market for

their services. However, it can also be said that the PWI programs are equal to the challenge by providing matching levels of performance. Screening factors, unlike Handicapper Specific factors, appear to be strong suits for PWI programs.

Supply and Training Factors

Because there are only two of the Lewis (1988) elements in the Training factor, this study combined the analysis with the Supply factor. Following the previous formats, Table 24 shows a comparison of the importance mean ratings with their significant level of difference for the two programs.

In viewing these two factors at the same time, two very different results are obtained. In the Supply factor MRS employers scored significantly higher expectation results in three of the four elements. The PWI employers only showed the same expectation level for a "ready supply of temporaries or interns (PWI 5.4 and MRS 5.9).

Meanwhile, the PWI employers demonstrated significantly higher expectations levels for the two training related elements: training input (PWI 8.2 and MRS 6.3) and training programs (PWI 8.0 and MRS 6.0).

Table 25 provides a comparison of the performance rated elements for the two programs.

Once again the performance rating results generally follow the importance level ratings, and the two factors show very different results. The one exception this time is the element "providing advance notice when unable to meet manpower needs" (PWI 7.1 and MRS

Table 24
A Comparison of PWI and MRS Supply and
Training Importance t-Test Values

	PWI importance		MRS importance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Supply elements					
1. Reliable source	6.8	2.5	8.7	1.5	.000*
2. Ample supply	7.3	2.2	8.3	1.7	.000*
3. Advance notice	6.6	2.6	8.0	2.3	.000*
4. Interns	5.4	2.6	5.9	2.9	.180
Training elements					
1. Solicits input for training	8.2	1.7	6.3	2.8	.000*
2. Training programs	8.0	1.9	6.0	2.8	.000*

*Significant at the .05 level.

7.3) which did not prove to be significantly different for either program. Otherwise, the Supply elements received significantly higher performance ratings for the MRS program and the two Training elements were proven higher for the PWI program. Of all the factor elements, the poorest expectation and performance ratings for the PWI program were in the Supply area, while Training was the poorest area for both employer expectations and program performance for the

Table 25
 A Comparison of PWI and MRS Supply and Training
 Performance t-Test Values

	PWI performance		MRS performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Supply elements					
1. Reliable source	6.3	2.6	7.4	2.4	.010*
2. Ample supply	6.2	2.7	7.3	2.2	.001*
3. Advance notice	7.1	2.4	7.3	2.5	.820
4. Interns	6.5	2.8	7.4	2.5	.020*
Training elements					
1. Solicits input for training	8.2	1.7	6.3	2.8	.000*
2. Training programs	7.9	1.9	6.0	2.8	.000*

*Significant at the .05 level.

MRS. Next, Tables 26 and 27 show how these employer expectations and program performance ratings match up for the two programs.

From Table 26, it is evident that PWI has lower performance ratings than the importance ratings in the Supply factor elements. Employers also marked their expectations lower for PWI than for MRS. Under the Training factor, the Training element, "solicits input for training program content," confirms two of the major activities of

Table 26
A Comparison of PWI Supply and Training Importance
and Performance t-Test Values

	PWI importance		PWI performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Supply elements					
1. Reliable source	6.8	2.1	6.3	2.6	.005*
2. Ample supply	7.3	2.2	8.3	1.7	.000*
3. Advance notice	6.9	2.6	7.1	2.4	.650
4. Interns	5.4	2.6	5.7	2.9	.390
Training elements					
1. Solicits input for training	8.2	1.7	8.1	2.2	.230
2. Training programs	8.0	1.9	7.4	2.1	.009*

*Significant at the .05 level.

PWI programs which are to solicit input and provide training opportunities. It is surprising that the employers' ratings of the performance of the PWI training programs is still significantly lower than their expectation level for the training programs (8.0 versus 7.4). This suggests that the PWI programs may be overselling the capabilities of the trained client, such that the employers may have unrealistic expectations. Table 27 gives a comparison look at the

Table 27
A Comparison of MRS Supply and Training Importance
and Performance t-Test Values

	MRS importance		MRS performance		2-tail prob.
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Supply elements					
1. Reliable source	8.7	1.5	7.7	2.1	.000*
2. Ample supply	8.5	1.9	7.3	2.2	.000*
3. Advance notice	8.1	2.4	7.3	2.5	.001*
4. Interns	6.9	2.7	7.4	2.5	.050*
Training elements					
1. Solicits input for training	6.8	2.7	6.3	2.8	.100
2. Training programs	6.2	2.6	7.1	2.6	.000*

*Significant at the .05 level.

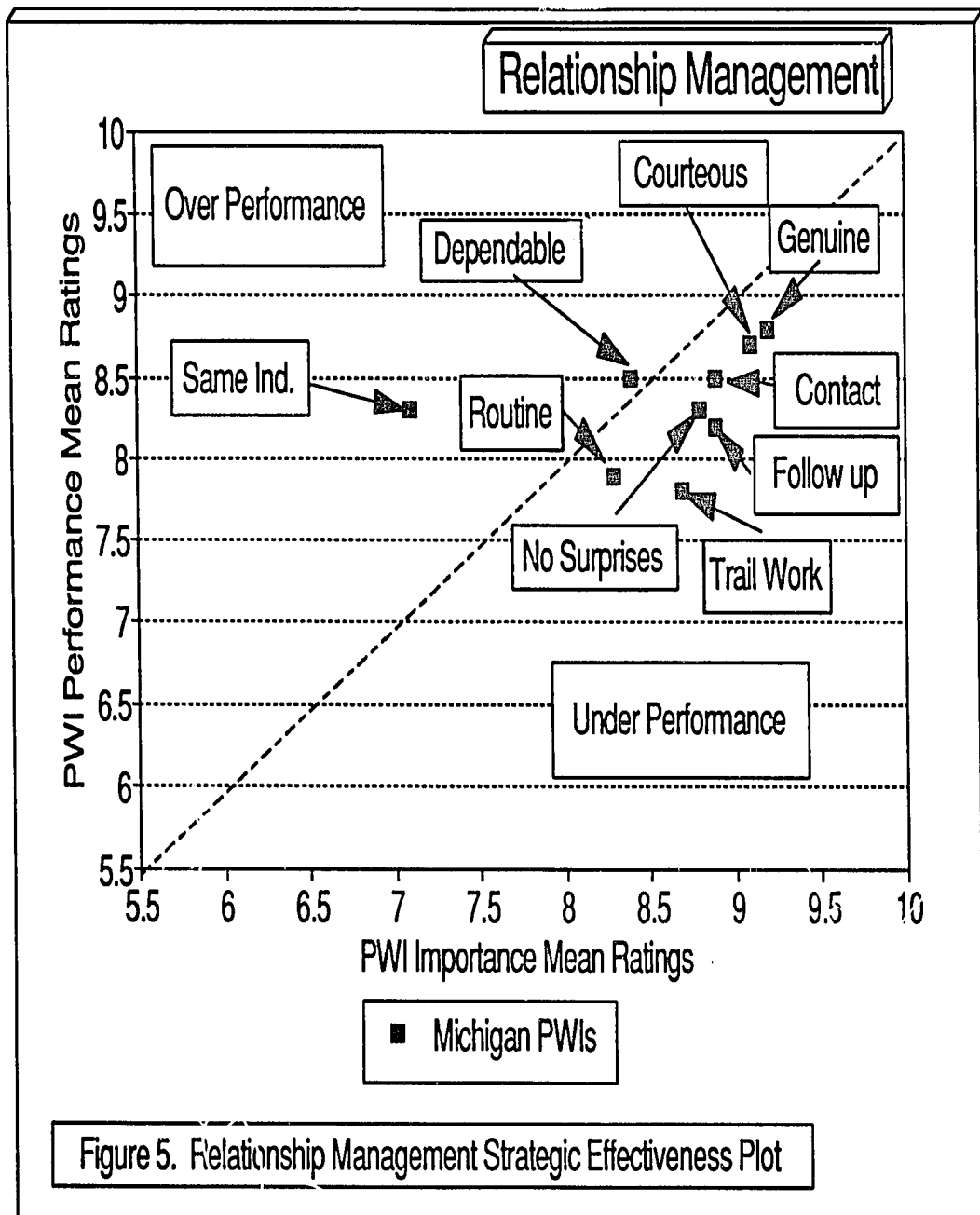
employer's perceived effectiveness of the MRS program.

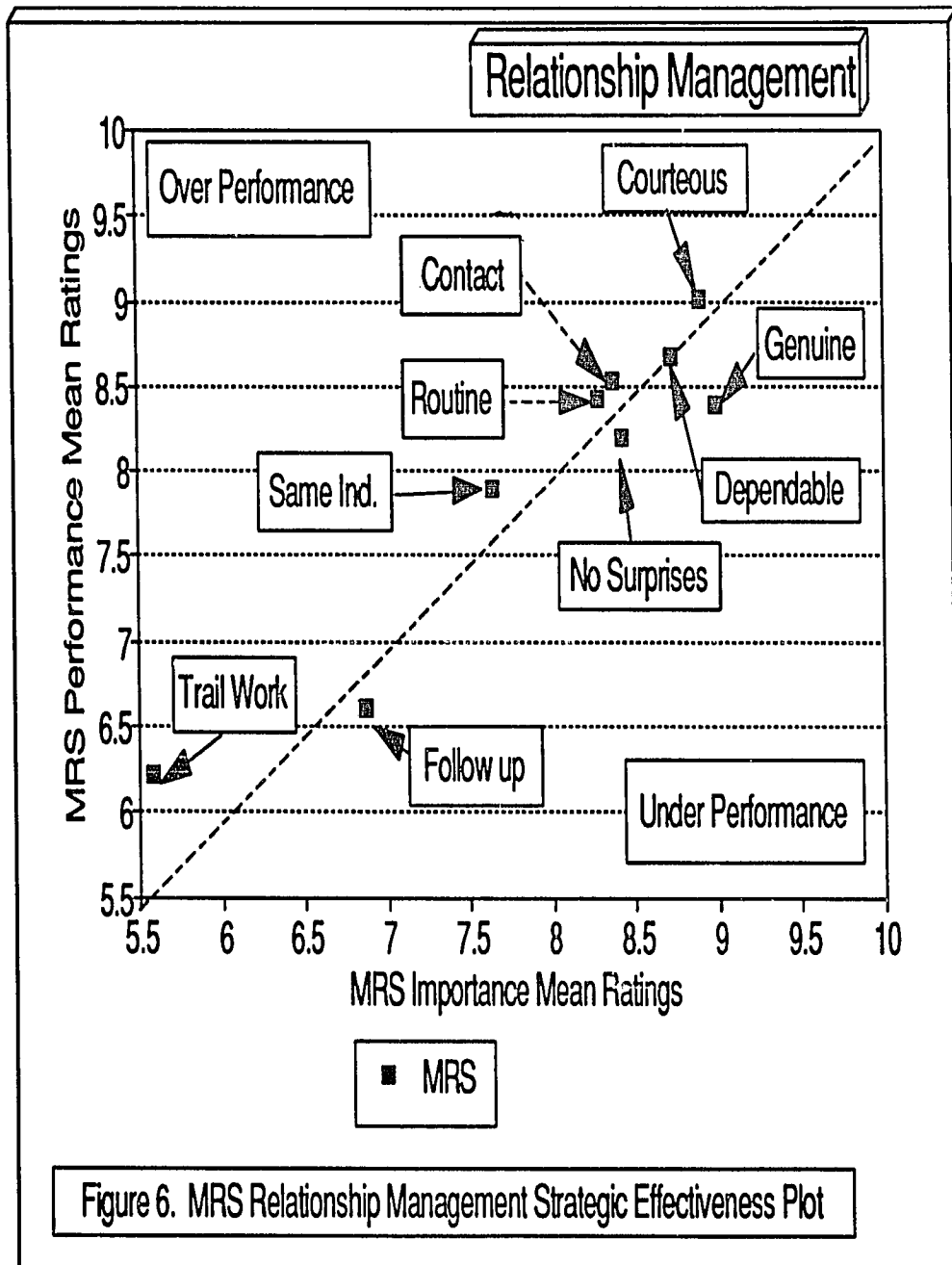
Expectations and performance ratings for MRS varied significantly on five of six Supply and Training factor elements. Only the Training element "solicits inputs for training program content" received equally poor ratings. However, it should be noted that MRS offices rarely engage in this practice (Ann Arbor district office is the exception here) nor do they often have control in as they

contract almost all of their training to outside vendors. It is most interesting that the employers rated both MRS's training programs "to equip applicants with specific skills" (6.2 and 7.1) and their "ready supply of temporaries or interns" (6.9 and 7.4) as significantly higher in performance ratings than they had expectations for them. This seems to indicate that the MRS agency may be underselling their ability to supply numbers of well-trained workers who happen to have a disability.

Strategic Effectiveness

Hypothesis 7 was supported. There is a significant difference in the relationship of strategic effectiveness factors as expressed by Projects With Industry program employers compared to those expressed by employers of clients placed directly by Michigan Rehabilitation Services. Optimal strategic organizational effectiveness may be viewed as the point on the XY graph (Figures 5-12) where service users perceived importance and performance ratings are matched in value. Thus, the performance of the program would meet the expectation level of the customer, and there would be no significant difference between the importance and performance scores. If, on the one hand, the performance level is found to be greater than the importance level, then too much of the organization's efforts are being used in pursuing this factor. If, on the other hand, the importance ratings are found to be higher, then not enough effort is being given to meeting the expectations for that factor. A 45 degree angle provides the optimal regression line--the organization is





Note: Data source 1988 Lewis study

Handicapper Specific Elements

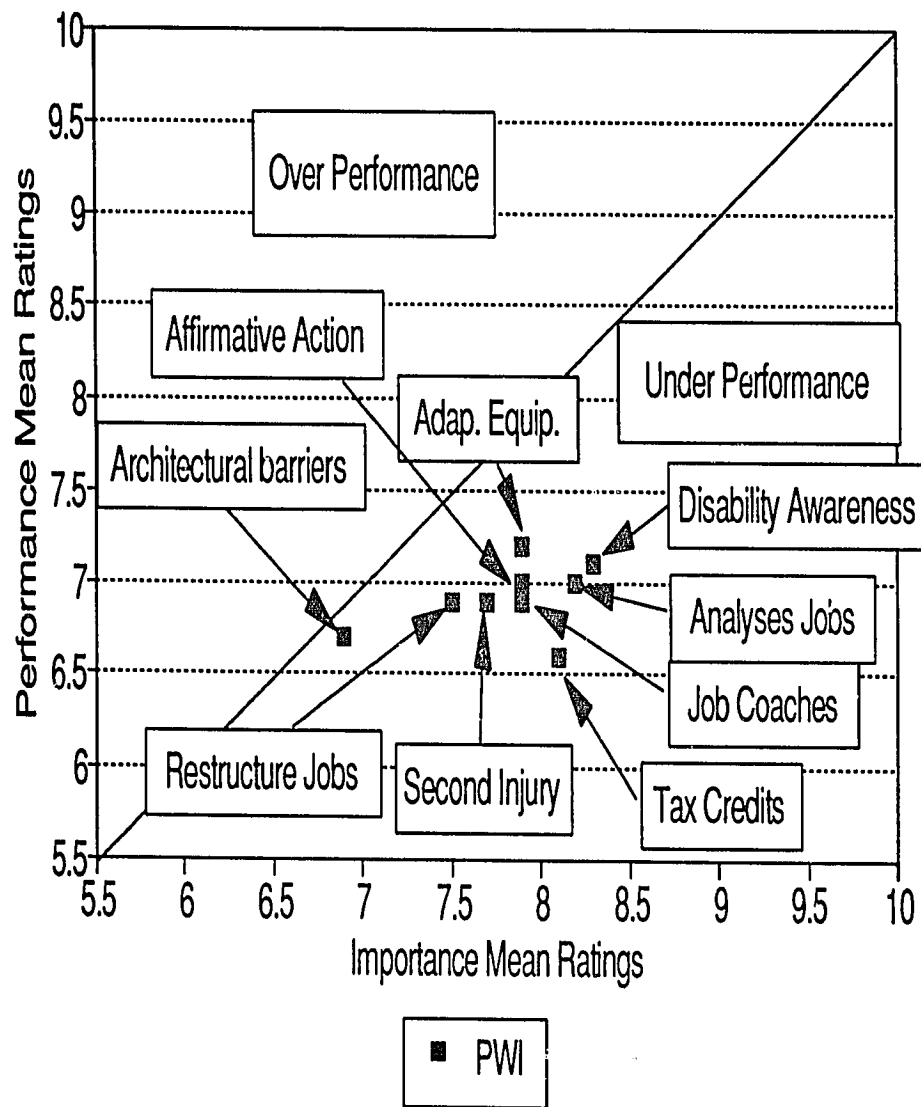


Figure 7. PWI Handicapper Specific Strategic Effectiveness Plot.

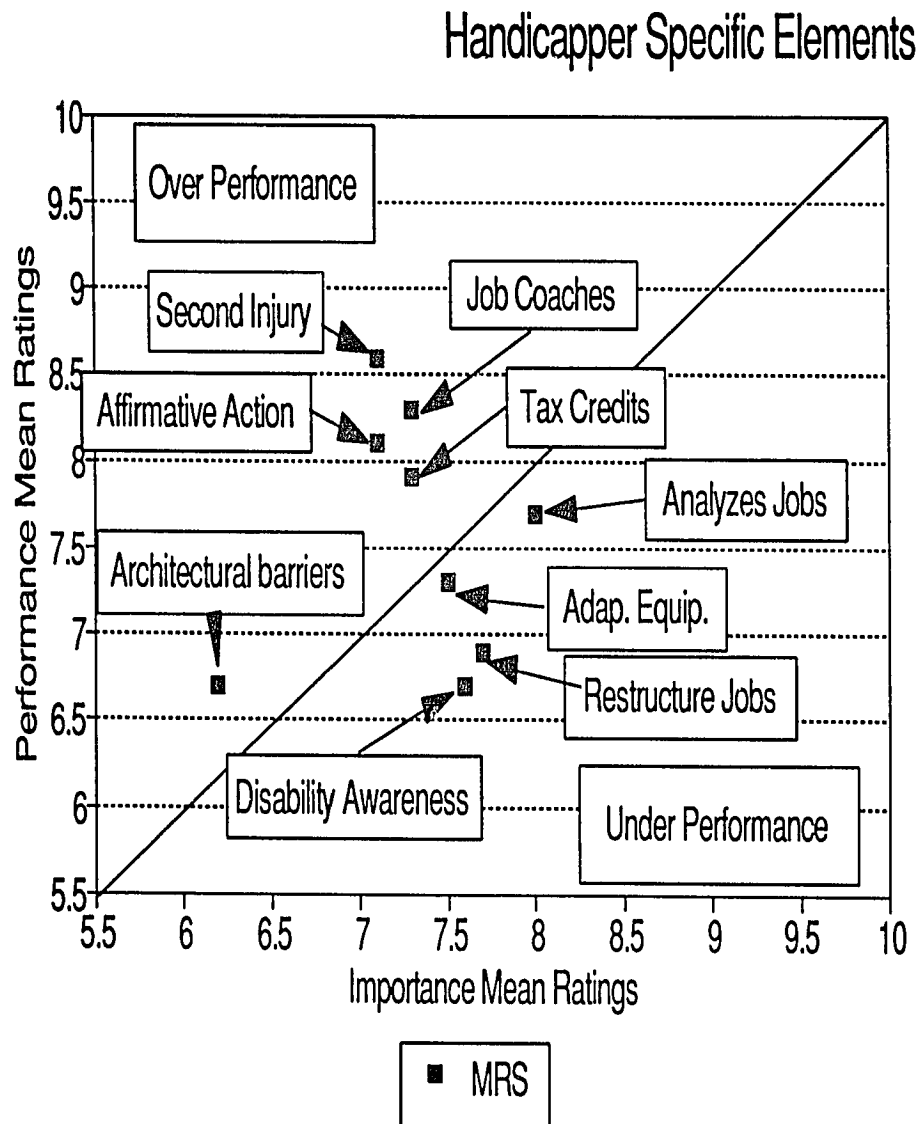


Figure 8. Handicapper Specific Strategic Effectiveness Plot.

Note: Data source 1988 Lewis study.

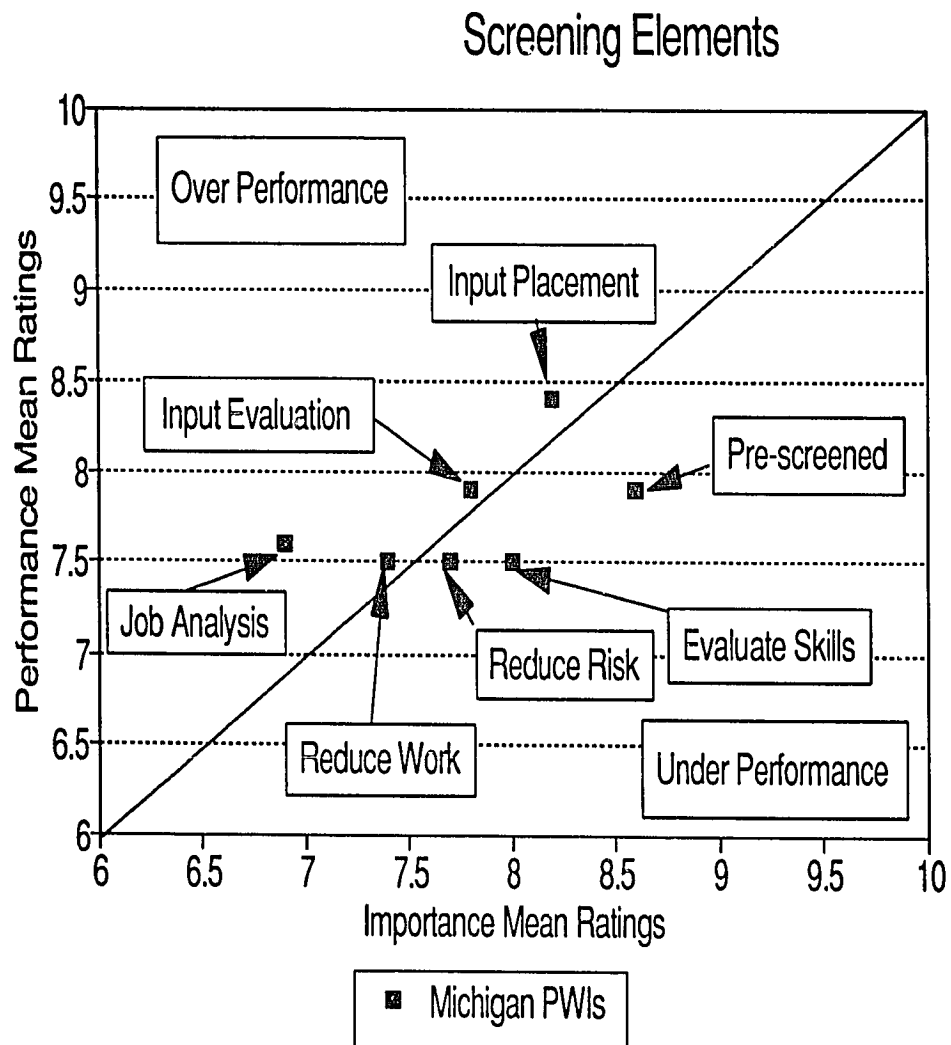


Figure 9. Screening Strategic Effectiveness Plot.

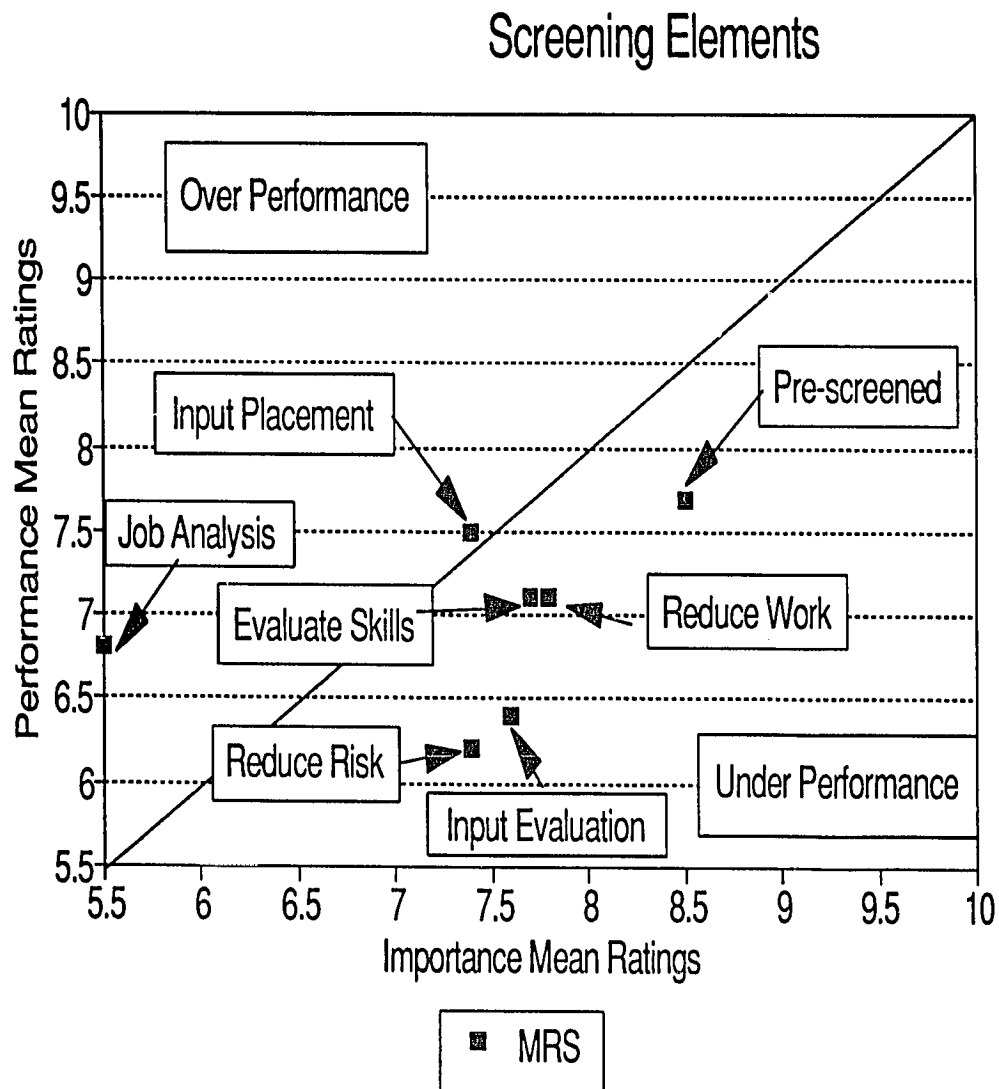


Figure 10. MRS Screening Strategic Effectiveness Plot.

Note: Data source 1988 Lewis study.

Supply and Training Elements

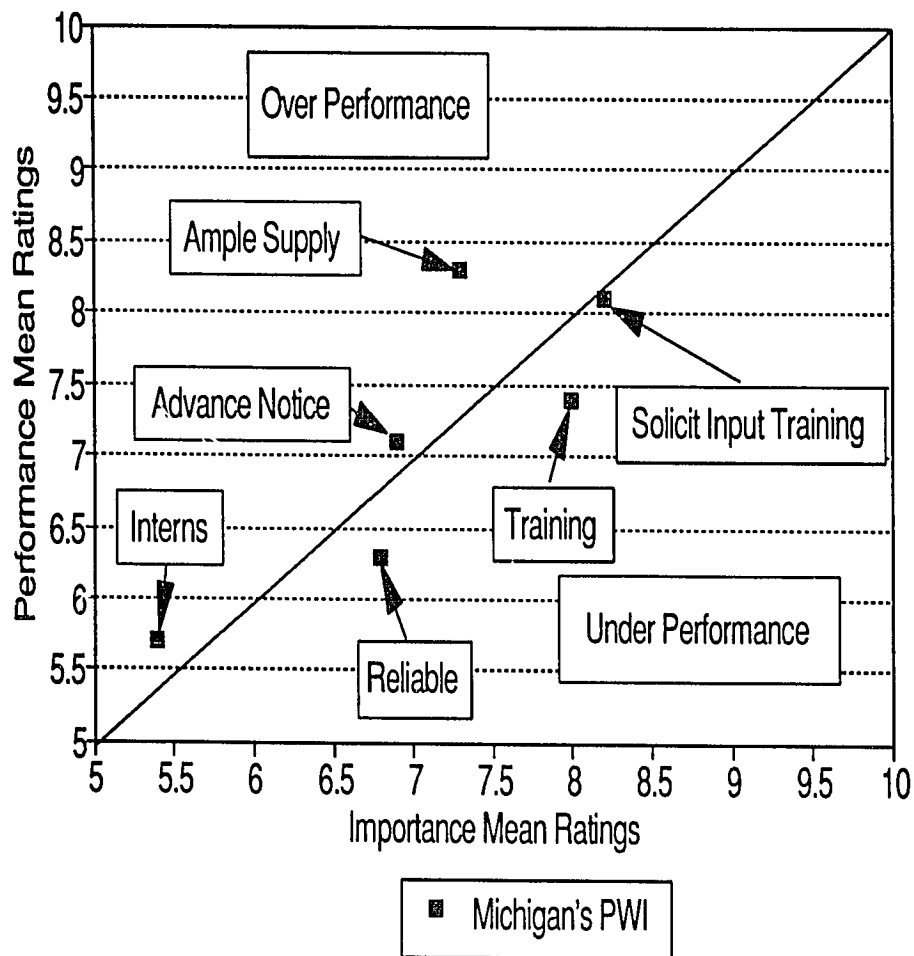


Figure 11. PWI Supply and Training Strategic Effectiveness Plot.

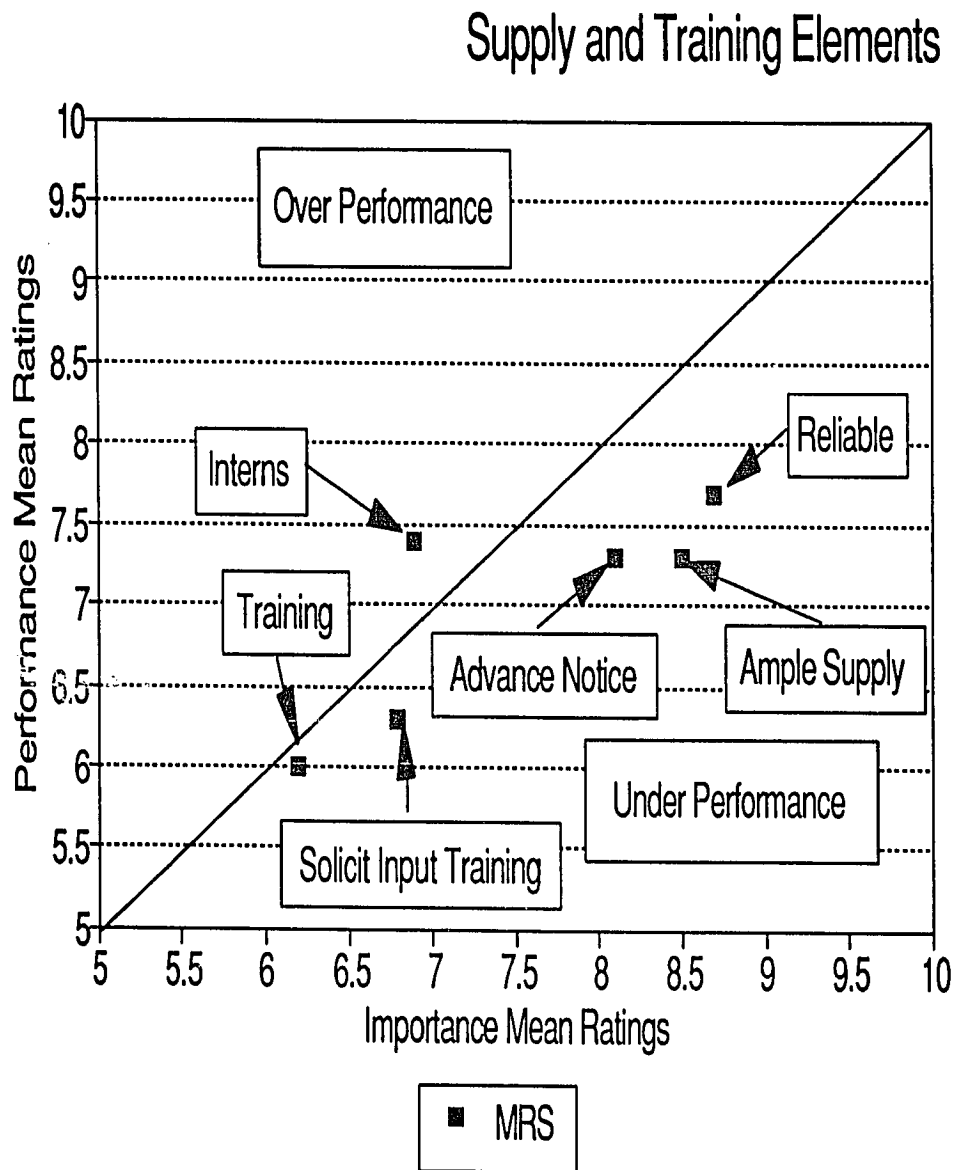


Figure 12. MRS Supply and Training Strategic Effectiveness Plot.

Note: Data source 1988 Lewis study.

then neither under-performing nor over-performing for each factor element. Figures 5-10 provide such a measure of strategic effectiveness for the two samples. The Pearson product-moment correlation of the means of the rated performance and importance score for the PWI sample is .67. While for the MRS sample, r is also equal to .67, the real difference can be seen in the .42 covariance (sig. < .05). In an ANOVA, PWI has an F score of 4.3 with a probability of .0000 and MRS has an F score of 65.5 with a probability of .0000. Thus, even though the slope is the same, there is a much larger difference in the MRS/PWI covariance. To further test the null hypothesis that the overall variances for the two main independent variables (PWI and MRS) are different, a Hotelling T^2 test was also used. The analysis produced a Hotelling T^2 of 1,043.75, $F(30,68) = 31.39$, probability less than .0000. Thus, Hypothesis 7 is supported that overall, Michigan's employers indicated a difference in their expectations and perceptions of the two programs. The PWI programs have less significant overall variance on the mean rating pairings of the importance and performance factors. According to the definition of strategic effectiveness used in this study, Michigan PWI programs can be said to be more strategically effective in marketing their services to employers than Michigan Rehabilitation Services. However, if the individual factors are examined by viewing the significant differences in the expectation and performance scores in each factor, the Michigan Rehabilitation Services is considered effective in the Handicapper Specific and Supply factors, while the Michigan PWI programs are found to be more strategically

effective in dealing with the Relationship Management, Screening, and Training factors.

Satisfaction: The Dependent Variable

Hypothesis 8 is supported. There is a significant difference in the level of customer satisfaction expressed for the Michigan Projects With Industry and Michigan Rehabilitation Services programs (Table 28).

The dependent variables of interest in this study are the satisfaction ratings of the survey participants. The respondents were asked here to indicate the name of the rehabilitation organization that they had worked with the most, and then to specify how satisfied they were with it. Satisfaction levels are measured by a respondent's written indication on a scale. In this case respondents were asked, on a scale of 1 to 10, how satisfied they were with the program(s) with which they have been working. A student t test of difference was used to test each PWI group and subgroup against its MRS counterpart.

In addition the PWI respondents were asked if they were a business advisor, employer, or both. Mean satisfaction levels were obtained for these three subgroups. It is interesting that the most satisfied respondents were those employers who rated themselves as business advisors only. Apparently these were representatives from organizations that could employ persons with disabilities, but had not previously been directly involved in hiring a person with a disability. They had, however, offered input to an organization

Table 28
Mean Satisfaction Ratings of Organizations
That Help People to Find Employment

Organization	<u>N</u>	Mean	<u>p</u>
MRS	320	7.27	
Michigan PWIs	127	7.66	< .05*
General competition	108	7.74	< .05*
Indirect competition	78	7.42	
Responses for individual Michigan PWIs			
Project NICHE	87	7.77	< .05*
STIRC	66	7.48	.31
Pine Lake	21	8.68	< .01*
Project SYNERGEE	55	8.00	< .01*
Ann Arbor	16	7.27	.93
Traverse Bay	7	9.33	< .01*
Battle Creek	20	8.31	< .01*
Saginaw	12	7.70	

*Significant at the .05 level.

whose main purpose was finding employment for persons with disabilities. Even those respondents who saw themselves as employers only were more satisfied than those individuals who had responded as an employer, both providing input to the PWI organization and hiring a person with a disability from a program. In marketing

terms, it might be said that although they had become customers, they were perhaps in some way disappointed that the program's marketing performance had not met their expectations (see Table 29).

Table 29
Satisfaction Levels of BAC Members and
Employers: t-Test Values

	Number of cases	Mean	2-tail prob.
BAC members only	43	7.79	.001*
Employers only	47	7.70	.030*
Both	36	7.42	

*Significant at the .05 level.

Regression Analysis of Customer Satisfaction

To test which factor had the most bearing on the respondents' level of satisfaction, a stepwise regression analysis was run for both the importance and performance factors for both groups. In this way, those market factors most disappointing to employers were identified. Satisfaction was used as the dependent variable--first against the PWI independent importance factors variables, and then against the PWI performance factors variables. The same procedure was also used with the MRS employer ratings.

Factor analyses on the two sample groups eliminated as significant many of the factor variables that had been defined by Lewis (1988) (Appendix F); therefore, the multivariate analyses presented

here are refined multivariate analyses based on the findings of the bivariate hypotheses and the factor analyses. Multiple regression analyses and their significant tests were selected as the appropriate statistics to decide whether there are statistically significant associations between the dependent variable (level of employer satisfaction) and the statistically significant independent variables of importance and performance marketing elements. The same testing procedure was used on the MRS sample.

The independent variables of marketing importance and performance were tested using a refined multivariate analysis in these forms:

1. There are different significant predictive independent variables for the Michigan Projects With Industry programs and Michigan Rehabilitation Services.

2. The PWI performance variables--"to reduce risk of making a bad hiring decision," "provide assistance with federal target job tax credits," and "ability to contact easily"--are predictive of employee satisfaction with an organization that helps persons with disabilities find employment.

3. The MRS performance variables--"to help meet federal compliance requirements," "to provide input on skill assessment," and "provide an ample supply of qualified candidates"--are predictive of employer satisfaction with an organization that helps persons with disabilities find employment.

These hypotheses are supported. Table 30 shows that the two programs have no significant marketing variables in common. The

three PWI performance variables presented in Table 30 have a multiple correlation of .57 and explain about 56% (multiple $R^2 = .56$) of the variance of the dependent variable. Together they are significant at less than the .0000 level.

Table 30
Prediction of Employer Satisfaction for Projects With
Industry and Michigan Rehabilitation Services
by Regression Analysis

Predictors	<u>b</u>	Beta	<u>T</u>	<u>p</u>
PWI performance				
Reduce risk	0.276	0.326	5.23	< .029
TJTC paperwork	0.246	0.338	7.06	< .012
Contact	0.409	0.355	6.86	< .014
(Constant)	0.491			
Multiple <u>R</u> = .754	<u>R</u> ² = .568	Adjusted <u>R</u> ² = .525		
<u>SE</u> = 1.39	<u>F</u> = 13.18	<u>p</u> (Sig. of <u>F</u>) = .0000		
Predictors	<u>b</u>	Beta	<u>T</u>	<u>p</u>
MRS performance				
Federal compliance requirements	0.180	0.251		< .010
Input evaluation	0.060	0.088		< .050
Supply	0.290	0.307		< .010
Multiple <u>R</u> = 0.479	<u>R</u> ² = 0.230	Adjusted <u>R</u> ² = 0.230		
<u>SE</u> = 1.38	<u>F</u> = 6.84	<u>p</u> (Sig. of <u>F</u>) = .010		

The three MRS performance variables presented in Table 30 have a multiple correlation of 0.479 and explain 23% (multiple $R^2 = 0.230$) of the variance of the dependent variable. The categories "helps to meet federal compliance requirements," "actively solicits input for skill assessment," and "provide an ample supply of qualified candidates" are the three independent MRS performance variables that are the most powerful predictors of employer satisfaction. To "help meet federal compliance requirements" has a beta value of .25 and is significant at the .01 level. A placement representative who "actively solicits input for skill assessment" has a beta value of .06 and is significant at the .05 level. The placement representative "is able to provide an ample supply of qualified candidates" has a beta value of .29 and is significant at the .01 level. Both the PWI and MRS importance variables did not produce any significant regressions.

When a multiregression analysis was run with the following combinations of variables: PWI and non-PWI, importance and performance, only PWI and performance rated significantly positive (multiple $R^2 = .32$, beta = .42, $F = 3.28$, and sig. of $F = .04$). Thus, in this study overall, high performance ratings by the employer sample were related to being a PWI program.

Summary of the Multiple Regression Results

The multiple regression results can be interpreted in the following manner. Employers are satisfied with Michigan Rehabilitation Services when the MRS placement representatives provide

assistance with federal compliance requirements, provide opportunities for their input into the skill assessment process, and are able to provide an ample supply of qualified candidates.

Employers have also developed different standards of satisfaction for Michigan's Projects With Industry. They are satisfied with Michigan's PWI when they are offered help in reducing the risk of making a bad hiring decision and when PWI makes it easy to establish contact. They also expect PWI representatives to provide assistance with federal target job tax credits.

Motivational Reasons for Employers to Join a BAC

On the PWI survey, an additional set of questions were asked to persons who indicated that they were Business Advisory Committee members ($N = 97$). These questions ask to provide a 1 to 10 response as to the importance of a set of possible reasons for their involvement with a Projects With Industry's Business Advisory Committee. A rating of 10 was very important and a 1 rating was not at all important. Table 31 is a mean rank order of their responses.

In sharing these results with a group of 20 business advisors at a national Projects With Industry conference in San Diego, California, in May 1990, it was the consensus of the group in reacting to the rank order of reasons that the reason(s) that they continued to stay involved as a volunteer with a Projects With Industry program was not the reason(s) that they joined in the first place. It was also the consensus that it was the personal feeling of "doing good for others" that kept them involved and committed to the

Table 31
Rank Order of Reasons for Being Involved
With a Business Advisory Group

Ranking	Reason	Mean rating
1.	To do good	9.2
2.	Public relations	8.6
3.	Preview workers	7.5
4.	Interact with peers	7.4
5.	Disability awareness	7.3
6.	Affirmative Action assistance	7.1
7.	Corporate directive	6.7
8.	Post-employment service access	6.5
9.	Enhance employment status	6.3
10.	Workers for labor shortages	6.2
11.	Assistance-government paper work	5.9
12.	Money	4.3

program. However, their motives for joining in the first place were often for less noble reasons such as "good public relations," "Affirmative Action," or as a "corporate directive." Still money was the least motivating reason for becoming a BAC member. This is not surprising when the fact that they usually receive little or nothing for volunteering their time and efforts is considered.

A PWI operator may wish to keep these motives in mind when trying to recruit and maintain a business advisory group. Managers

need to respond to their corporation's social responsibility needs to get them started, but people need to know that they are indeed "doing good" for others to stay personally committed to social organizations.

Placement Rate Versus BAC Activity

As mentioned in Chapter III on methodology, one of the major difficulties with a survey instrument is that it might not truly reflect real world behavior. A time analysis with one of these PWI programs offers an approach to this validity challenge raised in Chapter III. If the assumption is correct that differences in employers' perceptions are a result of the Business Advisory Committee partnership interactions, which in turn lead to higher expectation and performance levels, then these higher levels result in greater customer satisfaction and in turn higher competitive employment outcomes for the organization. Thus, an increase in Business Advisory Committees' activity should, if all other variables are equal, lead to an increase in a program's competitive placement outcomes. While it is beyond the scope of this research study to attempt to measure Business Advisory Committee activity, growth patterns of an organization's Business Advisory Committees over time, and competitive placement outcomes may provide a validation indication.

The placement rate for one Michigan Projects With Industry program that receives 96% of its referrals directly from MRS is plotted against the number of business advisory groups initiated and maintained each year from 1977 to 1988.

The severely disabled rate placed by this PWI program was also plotted, but no relationships were found. The year 1977 was selected because that represented one year before the first PWI business advisory group was formed with 15 business volunteers. By 1990, the number of business volunteers had grown to 250 serving in 17 different advisory groups. Thus, this setting offered an opportunity to view a possible relationship between placement rate and the level of BAC involvement. A time chart would graphically shows the facility's placement rate increasing from the 70% range to the 90% area when BAC involvement was being dramatically increased. A strong relationship ($r = .90$) between increased competitive placement and Projects With Industry activity is strongly suggested.

Overall Results Summary

These two vocational rehabilitation programs were found to produce very different levels of and types of competitive job placement results on both the national and state levels. The question became, Why?

Although the employer demographics were found to be the same, some differences in client demographics were found. It was, however, suggested that these differences were of such a nature that they may serve to cancel each other out. Therefore, the process was examined using a marketing survey instrument. The survey divided the placement process into five major factors: Relationship Management, Handicapper Specific, Screening, Supply, and Training. These factors were further divided into factor elements. A total of 446

employers for both programs provided their perceptions on both their expectations for and performance of the program with which they had worked.

The results of this study have shown that these two programs do generate different employer perceptions of program performances and expectations and that these may account for different levels of satisfaction. From the comparison of the survey outcomes, it is apparent that at the time the employers were surveyed, they perceived the Michigan Rehabilitation Services program to be, on the whole, more involved with Handicapper Specific and Supply issues. Likewise, they expected and received, for the most part, increased program performance from Michigan's Projects With Industry programs in Relationship Management, Screening, and Training issues.

It is suggested in this research that program satisfaction may be related to different issues for the two tested programs. From the multiple regression analysis, it was found with Michigan Rehabilitation Services that employer satisfaction may be increased if the program will provide "assistance with federal compliance requirements" and greater opportunities for employers' "input into the skill assessment process."

Employers are satisfied with Michigan PWI when they are offered help in reducing their risk of making a bad hiring decision and when PWI makes it easy for the employer to contact them. The employers from this sample also appreciate assistance with federal targeted job tax credits.

The research also suggested that there may be a relationship between a program's strategic effectiveness, and competitive closure outcomes and the level of involvement that the program has with its business customers and competitive closure outcomes. Strategic effectiveness was defined as the degree of covariance between expectation and performance scores on an XY plot. MRS was found to be more strategically effective on the Handicapper Specific and Supply factors, while the Michigan PWI programs are more strategically effective on the Relationship Management, Screening, and Training factors.

It has also been suggested that too much involvement with a vocational rehabilitation program may create a discrepancy between employer expectations and performance scores, leading to a lower level of satisfaction. In questioning business advisors on their reasons for involvement, it appeared that most of them became first involved with the PWI program for corporate social responsibility reasons, but it was the feelings of "doing good" for others that kept them going as the primary reward.

CHAPTER V

CONCLUSIONS

Two pieces of landmark legislation that will chart the course of vocational rehabilitation policy for the United States into the next century are the Americans With Disabilities Act (1990) and the reauthorization of the 1973 Vocational Rehabilitation Act that is expected to receive Congressional approval in 1991. Opportunities for a better life for millions of persons with disabilities depend upon the policy initiatives in this new legislation. New directions sought through this legislation will hopefully be supported through evidence provided in this dissertation.

The Research Process

The purpose of this research was to compare the effectiveness of the two major public vocational rehabilitation delivery systems in the United States. This chapter will examine the findings, implications, and continuing issues encountered in this new area of comparative research.

The Fiscal Year 1988 was selected as the base year of comparison because it was the only year in the 17 year history of Projects With Industry that the Rehabilitation Services Administration mandated the collection of comprehensive program evaluation data. Copies of the original data source documents were obtained from the

Rehabilitation Services Administration and recoded for verification. This was done to validate the accuracy of the data for the 112 evaluated Projects With Industry (PWI) programs examined here. Nine PWI programs in Georgia, Florida, California, Michigan, Pennsylvania, Washington, D.C., and Texas were visited as well. PWI managers at these sites were audited on the accuracy of their reported data. In a national level meeting with Rehabilitation Services Administration staff in 1988, the research design and validity issues were also discussed.

Unfortunately, this was also the first and only year in the history of the Vocational Rehabilitation Services when, due to data collection and conversion errors, complete program evaluation data were not available from every U.S. state and territory covered by the state/federal basic 110 Vocational Rehabilitation program. Through the assistance of the University of West Virginia Rehabilitation Research and Training Center, the vast majority of these data were retrieved and thus served as comparative data for the national evaluation.

In that same year, Lewis (1988) completed her study entitled, Employer Perceptions of Michigan Rehabilitation Services and Other Placement Organizations, which was used as the comparative base for the state level portion of this study. Both Lewis and the Rehabilitation Services Administration staff were helpful in providing the source documentation needed for verification of the original data. Yet, it might have been better in retrospect to have resurveyed the data sources. Verification and data transformation difficulties

canceled the gains expected from using existing evaluation information.

Both the PWI performance evaluation study and the employer perceptions of Michigan Rehabilitation Services (MRS) in Lewis's (1988) study did, nonetheless, provide formats to use for the collection of comparative data. The PWI employer survey also included reasons for involvement with a Business Advisory Committee. Summary data on 15,300 clients, which represented the total population from all the PWI programs, were studied. Summary data from a nationwide sample of 138,383 vocational rehabilitation cases were also examined, thereby minimizing the likelihood of a sampling bias. In addition, 320 MRS employers were combined with 126 PWI Michigan employers to provide a large sample for the state level portion of the study.

Summary of the Results

Significant differences in competitive closure outcomes were found for the Projects With Industry and basic state/federal Vocational Rehabilitation program on the national level. These differences in competitive job closure outcomes included: program placement percentage, weekly earnings, and occupational types. Placement percentage was only available for testing of the state level. Neither client demographics nor disability types and levels revealed significant differences at the national level.

Some of these demographic and disability variables were moderately different at the state level. Still, employer demographics

were similar at the state level. The second portion also looked for possible explanations for these differences by conducting an in-depth comparative analysis of client characteristics and employer's perceptions in the state of Michigan. Table 32 provides a summary of the results of the study's hypothesis testing.

Table 32
Summary of the Outcomes of the Hypothesis Testing

Independent variables	National level	State level
Differences in job placement	Supported	Supported
Similarity in disabilities served	Supported	Not supported
Differences in demographics	Not supported	Supported
Similarity in weekly earnings	Not supported	Not tested ^a
Similarity in types of occupations	Not supported	Not tested ^b
Similarity in employer perceptions	Not tested	Not supported
Differences in strategic effectiveness	Not tested	Supported

^aState level PWI weekly earnings are not available.

^bState level PWI occupational differences information are not available.

In the state of Michigan analysis, the two hypotheses about employers' perceptions and strategic marketing effectiveness reveal an obvious divergence in marketing orientation for the two organizations. These differences in marketing orientation by the state's

PWI programs toward Relationship Management, Screening, and Training factors as opposed to Supply and Handicapper Specific factors may provide PWI clients with a significant advantage in competitive placement opportunities over what they might expect from state/federal basic Vocational Rehabilitation services alone. Not that one program is superior to the other, but only that both appear to be more effective when used together. Jointly they appear to be better in accomplishing the legislative intent of the vocational rehabilitation movement in providing persons with disabilities with competitive employment opportunities. The question of the existence of similar comparative results in the case study state of Michigan was pursued.

Comparing the demographic information on a single state level provided inferential difficulties, because of differences in client characteristics. The statistical data were unavailable or too small to show that only the extensive involvement by business and industry in the rehabilitation process accounts for the significantly higher PWI levels of competitive employment outcomes. Thus, the differences in the state level competitive outcomes may be due to selective biases. Still, the similarity of the Michigan employer demographics in the two samples does provide greater credibility in a comparison of their perceptions of these two state level organizations.

The analysis then examined differences in both the employers' expectations and perceptions of organizational performance on a set of 31 marketing elements, as well as their general level of

satisfaction with the program. A multiple regression analysis was used to discover how these marketing elements may have contributed to the employer-expressed satisfaction levels with each of the programs.

The multiple regression analysis showed that the employers, because of their involvement with the two programs, developed different standards of satisfaction. The MRS employers suggested that their satisfaction with the MRS program is higher when they are offered help in determining how "work may be restructured for persons with disabilities" and when MRS makes it "easy to do business with them through routine procedures." Also they expect that the MRS placement representatives will be "courteous and helpful" and "display a genuine interest in" their organization. In addition, the multiple regression suggested that there is a strong relationship between reducing "their hiring workload when searching for and evaluating job applicants" and their satisfaction and expectation level with MRS as an organization. Thus, the MRS's placement representatives' ability to prescreen only the most qualified and trained applicants for position is a very strong selling point with employers.

Under the concept of strategic effectiveness, it is important for an organization to perform at a level that is expected by their customers. The structural integrity of an organization often depends on both its ability to perceive customer expectations as well as on its ability to adequately respond to those expectations. Fortunately, the MRS employer performance ratings for these elements

matched the expectation levels in all marketing elements save the one, "to reduce the employer hiring workload when searching for and evaluating job applicants." MRS should, then, emphasize this element much more in promoting its services. When establishing a relationship with an employer, an MRS placement representative needs to find out what hiring functions the employer does, and suggest ways in which he or she can reduce the employer's overall hiring workload by undertaking pretesting, job analysis, and other difficult or time consuming tasks.

The PWI employers on the other hand, expressed an entirely different set of satisfiers including having "a dependable and eager placement representative" who will "provide assistance with adaptive equipment" and "assist in meeting company's federal compliance requirements." They expressed related satisfaction in opportunities to advise on the program's placement methods. The performance scores by the PWI employers show that the PWI placement representatives are meeting employers' expectations, providing them with opportunities to "advise on the program's placement methods," and showing "dependable and eager behavior." Yet, greater efforts should be devoted by the PWI placement representatives to providing "assistance with adaptive equipment" and helping companies with their "federal compliance requirements." It would appear from this analysis that the PWI programs might greatly benefit from gearing up to offer employers technical assistance with the new Americans With Disabilities Act (1990), especially emphasizing its provision to provide reasonable accommodations.

Another set of related findings compared the mean satisfaction levels recorded for individual PWI programs to find out if individual PWI program differences might also affect employer satisfaction levels. Those PWI programs that were the most closely related to MRS, including STIRC and Ann Arbor, did not exhibit satisfaction level scores significantly different from those recorded for MRS. Both PWI programs operate from state Vocational Rehabilitation supported facilities; yet, the Michigan PWIs as a whole did have a significantly higher level of satisfaction expressed by their employers than by the MRS employers. The Michigan PWI programs were perceived as more akin to employment agencies that work with persons without disabilities.

The PWI employers were further broken down into Business Advisory Council (BAC) members only, employers only, and both. Business Advisory Council members only and employers only expressed little difference in their levels of satisfaction with the PWI programs; yet when those who were both employers and Business Advisory Council members were polled, they expressed significantly lower satisfaction levels. Perhaps, too much exposure is part of the cost of the reward/cost formula as suggested in the previously proposed PWI theoretical flow chart (Figure 1).

Implications of the Study

This study's findings show that Projects With Industry is an effective program with respect to providing competitive employment opportunities for persons with disabilities. Many have made this

claim (Boswell, 1984; Conn, 1985; Devins, 1984; Fleming, 1986), but none have empirically substantiated it. By using Rehabilitation Services Administration records and reports, this study finds that PWIs have more than 3 times the placement level for persons with disabilities than do those served only by the basic state/federal Vocational Rehabilitation program. Simultaneously, the PWI programs were shown to have served as many or more clients classified as persons with severe disabilities. The PWI program provided these clients with jobs that paid higher entry level wages. When compared with the clients served only by the state/federal Vocational Rehabilitation program, very few other demographic differences on a national level were suggested.

This study substantiates the assumption that the program differences offered by the two Michigan Vocational Rehabilitation programs result in significantly different employer perceptions. These differences could be related to marketing factors as detailed in this study under the employer perceptions and strategic effectiveness hypotheses. Both hypotheses were tested on the state level only, and significant differences were found. Still, it is possible that differences found in the state level client demographics may account for the program differences as well. In future research, a test needs to be devised to determine whether client demographics have a greater effect on placement results than other factors. In either case, these expectations and perceptual differences seem related to significantly higher levels of satisfaction.

Originally, this program was designed as a competitive comparison of one vocational rehabilitation program versus another. The data, however, revealed a far more complex set of relationships between the programs than was originally envisioned. As a result, this study demonstrates what two programs working together can do to improve the opportunities for competitive employment for the persons with disabilities that they serve. Most of the clients served by the Projects With Industry program were referred by the state vocational rehabilitation agency. Those referred clients received and benefited from case management services offered by the Vocational Rehabilitation counselor.

As suggested by the results of the state level portion of the study, vocational rehabilitation does better on some marketing elements, especially those related to Handicapper Specific and Supply factors, and the Projects With Industry program performs better on others, including Relationship Management, Screening, and Training. Thus, it is a major recommendation of this study that state vocational rehabilitation programs should do what they do best, and Projects With Industry programs should do what they do best. Michigan Rehabilitation Services may excel at the case management work of taking in and processing clients, guiding them through the maze of requirements to the services that address severe disabilities. This may include the paper work requirements (such as second injury certifications and targeted job tax credits) which are not emphasized in PWI organizations. On the other hand, this research would support the growing trend toward allowing the PWI programs to do the

bulk of the placement load. The first section of Chapter IV gave illustrations on how this is being done in Kansas, Arkansas, and Connecticut.

This is not a recommendation that all district office staff should give up job placement. There are some very talented placement people who can be found in a district vocational rehabilitation office. In private industry not everyone can do everything; yet, vocational rehabilitation counselors are often expected to excel in a wide range of tasks. Private industry has found that it requires a special set of personnel skills to be a good marketing person who can withstand an often continuous flow of rejection. These same ego skills are often not compatible with the counseling sensitivities needed for the personal and social adjustment issues of a person with a severe disability. These recommendations lead to some policy implications that will be discussed in the next section.

In Chapter II, a Projects With Industry flow chart is suggested based upon a review of the literature. This PWI marketing chart drew on concepts from both the exchange and balance theories of group formation. It provides a simple set of theoretical assumptions on the process of public/private sector interactions, but the research found that the performance and expectations levels are often interactive. Future research on vocational rehabilitation delivery systems may wish to explore the nature of this interaction.

An analysis of the survey results examined the degree to which the PWI employer's expectations and the program's performance were matched. This led to the question, Are expectations driving

performance or are program performance levels guiding employer expectations levels? Another way of viewing this question is to consider how much each group forms common attitudes and values because of their interaction with each other. These common attitudes and values in turn would direct each member of the group to try to match expectation levels to performance levels or performance levels to expectations depending upon who is performing. This may explain the PWI consistency, but the MRS consistency level was not that much different. There may be a fair degree of informal interaction going on between counselors serving the MRS program and their employers that would allow them to communicate common attitudes and values to each other.

According to the proposed flow chart (Figure 1), the common attitudes and values would continue to depend upon the continuation of positive reward/cost outcomes. Though the cost outcome could be measured in terms of time, money, and energy, the rewards would be less certain. From the survey result it is now known that the feeling of "doing good" for others is the primary reward, though the prospect of improving the corporate social responsibility image of the employing organization may serve as the initial inducement for volunteering to become a member on a BAC.

Policy Implications

Currently, there is much speculation and discussion regarding future policy directions for vocational rehabilitation in this nation. With both the regulations for the Americans With Disabilities

Act (1990) and the reauthorization of the Vocational Rehabilitation Act now being written, policymakers will be contending with new sets of legislative guidelines.

Will Congress and the vocational rehabilitation community continue to recognize Projects With Industry as mere demonstration projects or will PWI be allowed to become "Programs With Industry"? The new vocational rehabilitation authorization is considering changing the name of Projects With Industry to "Programs With Industry" to convey the notion of an ongoing service delivery system rather than a temporary status.

This study demonstrates that Projects With Industry programs are effective in fulfilling the legislative intent of vocational rehabilitation to help provide competitive employment for persons with disabilities. This study reinforces the idea that PWI and the state/federal basic Vocational Rehabilitation program should become equal partners in the full implementation of the Americans With Disabilities Act (1990).

Congress is currently preparing the Vocational Rehabilitation Act, last amended in 1986 for reauthorization. Besides the proposed name change, funding authorization for PWI that is now at \$19.3 million is to be increased to \$50 million in 1992, \$60 million in 1993, and \$70 million in 1994. These recommended increases may be supported by this study, for in comparison the current expenditure level for all vocational rehabilitation is over \$1.9 billion.

Harles (1991) claimed that there is a direct relationship between increases in PWI funding and increases in PWI placements; "it

is based on our survey of current projects and their estimate of how much their project could realistically expand" (p. 3). Also, RSA recently received 330 PWI applications for less than 100 new projects to be funded in 1991. Thus, it could be projected based upon this study's results that if the proposed threefold increase is granted for PWI, there is the potential to increase vocational rehabilitation competitive placements by the same multiplier or about 90,000 persons with disabilities per year. This represents about a 60% increase in competitive VR job placements with only a 3% increase in the total VR appropriation. Still, a larger PWI program may encounter some of the same bureaucratic restraints that limit the state/federal Vocational Rehabilitation system.

It is also proposed that all state vocational rehabilitation agencies have a Business Advisory Council to guide them in their policy directions. Using the suggested Projects With Industry model, if such an organization were composed of a majority of high level business executives, it could have some dramatic effects on changing attitudes and values held by members of both the rehabilitation and business communities. BAC organizers might wish to remember that this study shows that business volunteers may be initially enticed to serve on a BAC by the public image it offers to their firms, but that their continued participation is likely to rest on a sense of "doing good" for others. Thus, these state level BAC volunteers will need to come face to face with the people that they are helping to keep them motivated.

Limitations of the Present Research

Some limitations of this research have already been discussed in other contexts. From the onset, this was meant as a practical, as opposed to a theoretical, study of existing structures and practices. Existing structures and practices are often grounded in less than perfectly controlled research environments as was discovered in this study. The need for self-defined controls became more apparent during the process of the research. The sheer mass of data overwhelmed some of these limitations; still others remain.

Earlier in this chapter some of the difficulties related to data acquisition were discussed. Fortunately, the researcher was given access to the original data sources and could audit some data source sites. Economic data including return of investment prove to be too unreliable to be of use in this study. In comparing the two vocational rehabilitation systems, it was also realized that some individual state agencies and some PWIs tended to skew their results. There is an attempt now by the Rehabilitation Services Administration to eliminate those PWI programs that are PWIs in name only, that is, those that do not have active Business Advisory Committees.

If the funding would have been available, the PWI survey would have been a phone survey as well. Each method generates its own set of bias, which could have been limited by using the same survey methodology.

The most serious limitation of this study was the use of only one state in the employer surveys. Having completed a national comparison of the two programs, it is difficult to project any of the employer survey results much beyond Michigan. The employer surveys compared one state vocational rehabilitation agency with six individual PWI programs conducted by two operators. These were the entire VR and PWI populations for Michigan and would not, therefore, establish a research design for the study of other states.

Finally, the assumption that the dependent variable, satisfaction, is related to increased job placement needs further testing. Additional measures relating these two variables need to be developed and explored. If groups of persons without disabilities could have been used as control groups, additional clues to the relationships between the variables as they pertain to the "normal population" could also be generated.

Implications for Future Research

Since this is a program evaluation study, and programs are always subject to change, there is much opportunity for additional research. If the issues of what should be included in both costs and benefits could be solved (Berkowitz, 1988; Dean & Dolan, 1983), then economic comparisons should strongly be considered; but funds for the programs are so highly intermingled that this would be very difficult now.

A single state approach limits the impact of this study's employer surveys. Much could be learned by conducting similar surveys

of employers from other states that have other types of Projects With Industry. The current study was also limited to one base year, 1987. Another 20 PWI programs have been added since 1987. In October 1991, only about 100 of 330 PWI grant applications will be funded for the next 5 years. All the newly funded PWI programs could be contacted to provide up-to-date comprehensive PWI program evaluation data. Although RSA R-300 report questions the state VR agencies about how many of their clients received PWI services, the response was found to be significantly smaller than responses provided directly to RSA by the PWIs on their Performance Indicator reports. The Performance Indicator reports are subjected to federal audits, the R-300 PWI data element is not. In Michigan many VR counselors are unaware of who manages the state's PWI programs; thus, it is recommended that RSA eliminates this meaningless data element.

There is a growing movement by both trade associations and labor unions to serve as Projects With Industry program operators. Kobrak (1973) found similar involvement by such collective organizations in the urban manpower programs. This involvement, however, continued only as long as the public funding lasted. Some unions are even negotiating labor/management contracts to include provisions for persons with disabilities. It would be interesting to find out how much impact labor unions and trade associations are having by conducting Projects With Industry programs for both their injured workers and their new workers with disabilities. How much and in what ways would employers' expectations and perceptions

change? There has been some basic research by Shoemaker (1989) to explore corporate resistance for early return to work. In a related study conducted by Hurren, Leneway, and Shoemaker (1986) both private-sector and public-sector employers were surveyed on their attitudes toward the early return to work of workers with injuries. Examining how these attitudes change over time with and without Projects With Industry involvement would be useful.

In addition, there are other marketing orientations of key stakeholders that should be considered. It would be interesting to do a comparison survey of the divergent perceptions and expectations of the PWI operators and their employers. Lewis (1988) found in her study that there was a negative correlation between the perceptions and expectations of the employers and those of her MRS focus group. A very interesting addition to this study would find out if the PWI operators would obtain opposite results, thus indicating that they are more in tune with their customers.

The disturbing fact that BAC members who also employ PWI clients are, as a group, less satisfied than either those individuals who are only employers or only BAC members suggests the need for additional research in this area. Additional research on their satisfaction with their new workers who were PWI clients is definitely indicated.

Also, a long-term comparative follow-up study could be done with both groups to figure out comparative job retention rates. Berkowitz (1988) did a 5-year follow-up study on job retention rate for Vocational Rehabilitation clients in the states of California,

Virginia, and Texas. Former clients' job histories were tracked using Social Security records. These clients were largely found to have benefited from VR services. Would the same hold true for PWI clients; if so, to what extent?

The state level comparison of competitive closure outcomes might have been more powerful if the pre- and post-PWI income and occupational areas of employment levels could have been computed. Significant differences were found at the national level in the change in client income levels and occupational areas. PWI clients on a national average were found to make \$34 to \$37 more per week than clients exposed only to Vocational Rehabilitation. They were also more likely to be in service, clerical, sales, and machine trades and less likely to be in assembly, agriculture, fish, and forestry. A state level analysis for this comparative study would have required extensive searching through client files at the six different PWI sites, a task which was beyond the existing resources.

Lewis (1988) suggested that a very good marketing measure is the amount of repeat business an industry enjoys. Her study examined over 1,900 case files to determine that there was only a 10% level of repeat business over a 3-year period. Examining the PWI files would have required looking at similar numbers from all the six Michigan's PWI sites for a similar 3-year period. Thus, a study of a large sample of PWI employers' repeat competitive hires would be an important contribution in future related studies.

One advantage of this study is that it finally offered a comparative group to study against the state/federal basic VR program

results. Yet, this could be taken one step further and comparisons for persons with and without disabilities who have no exposure to either program could be added to this study design. Berkowitz (1988) provided a comparison between the differences in economic outcomes of persons with disabilities who receive services from vocational rehabilitation and those who do not. What would their competitive placement outcomes be? Would a PWI placed client earn as much or more than a new worker without a disability and without placement assistance?

A Concluding Comment

This research has suggested that the Projects With Industry model of service delivery can be a tremendous marketing tool to bring the new hopes and aspirations of America's citizens with disabilities into reality. By recognizing that Projects With Industry is a complementary program and not a competing program, even greater levels of program effectiveness are possible. In this age of specialization, there is still time to recognize that both the state/federal Vocational Rehabilitation program and Programs With Industry have legitimate special roles to play in achieving the promise of the 1990 Americans With Disabilities Act.

APPENDICES

Appendix A
PWI Marketing Survey and Cover Letter

MICHIGAN'S TRAINING AND PLACEMENTS PROGRAMS FOR PERSONS WITH DISABILITIES

The purpose of this survey is to assess how several "Projects with Industry" programs in Michigan are meeting the needs of employers in helping persons with disabilities find jobs. Please answer the following items based on your current knowledge and attitudes regarding the subject matter.

1. Have you had any previous experience in the past three years with the following organizations that could help you find new employees? (Please check in the appropriate places.)

_____ State Technical Institute and Rehabilitation Center (Project NICHE)

_____ Project SYNERGEE

_____ Ann Arbor / Michigan Rehabilitation Services

_____ Traverse Bay Area Career Tech Center

_____ Calhoun Area Vocational Center

_____ Saginaw

_____ Pine Lake Project

2. How have you worked with these training and placement programs?

_____ As a Business Advisor of the above listed programs

_____ As an *employer* of one of the program's graduates

3. On a scale of 1 to 10, please indicate how satisfied you are with the Projects with Industry program(s) with which you have been working.

Not
Satisfied

Very
Satisfied

1 2 3 4 5 6 7 8 9 10

PART I. Please rate the following factors which may or may not be **important** to you if you were to start a relationship with an organization that helps you find new employees. Rate them on a scale from "1" to "10". Use a "1" for factors that are Not At All important and a "10" for factors that are Essential.

	<div> <i>Not at All</i> <i>Important</i> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <i>Essential</i> </div>									
1. Ability to conduct business with the same individual with the program over a long period of time	1	2	3	4	5	6	7	8	9	10
2. Using employer-determined specifications, applicants are pre-screened before referral to you	1	2	3	4	5	6	7	8	9	10
3. Provides an ample supply of qualified candidates	1	2	3	4	5	6	7	8	9	10
4. Ability to contact the organization's representative when problems arise	1	2	3	4	5	6	7	8	9	10
5. Training programs equip applicants with the specific skills needed in your business	1	2	3	4	5	6	7	8	9	10
6. Provides a ready supply of employees to work as temporaries or interns in your business	1	2	3	4	5	6	7	8	9	10
7. Conducts job analyses to figure out the skills required to effectively do specific jobs	1	2	3	4	5	6	7	8	9	10
8. Actively solicits your input so that training program content reflects skills needed for jobs in your organization	1	2	3	4	5	6	7	8	9	10
9. Actively solicits your input regarding skills assessment procedures	1	2	3	4	5	6	7	8	9	10
10. Willing to accept your input regarding methods for determining if an individual is ready to work	1	2	3	4	5	6	7	8	9	10

	<i>Not at All Important</i>	<i>Essential</i>
11 Fully evaluates skills through appropriate skills testing before recommending a job candidate	1 2 3 4 5 6 7 8 9 10	
12. Provides adequate advance notice when the organization cannot meet your forecast manpower needs	1 2 3 4 5 6 7 8 9 10	
13. Are a reliable source of qualified employees on a continuing basis	1 2 3 4 5 6 7 8 9 10	
14. Makes it easy to do business with them by establishing routine procedures for your transactions	1 2 3 4 5 6 7 8 9 10	
15. Are predictable in their methods of operation "No Surprises"	1 2 3 4 5 6 7 8 9 10	
16. The placement Representative is courteous and helpful	1 2 3 4 5 6 7 8 9 10	
17. The placement Representative displays a genuine interest in satisfying your organization's personnel needs	1 2 3 4 5 6 7 8 9 10	
18. The Representative is dependable and eagerly pursues the relationship with your organization	1 2 3 4 5 6 7 8 9 10	
19. Reduces your organization's workload when searching for and evaluating job applicants.	1 2 3 4 5 6 7 8 9 10	
20. Reduces your organization's risk of making a bad hiring decision	1 2 3 4 5 6 7 8 9 10	
21. Routinely follows up on each placement to ensure a good job match	1 2 3 4 5 6 7 8 9 10	
22. Places applicants for a trial work period to evaluate the match between the applicant and the employer	1 2 3 4 5 6 7 8 9 10	

PART II. Next, we would appreciate it if you would please rate the **importance** of service factors that you may or may not consider important in a relationship with an organization that represents applicants with a handicap. In this case, the term "handicap," refers to applicants who are deaf, blind, mildly retarded, or have a physical handicapping condition.

	<i>Not at all Important</i>										<i>Essential</i>
1. Assists in preparing managers and co-workers to work successfully with individuals with a handicap	1	2	3	4	5	6	7	8	9	10	
2. Determines how job duties, work flow and/or work environment may be restructured to enable an applicant with a handicap to successfully do a job	1	2	3	4	5	6	7	8	9	10	
3. Analyzes basic job components to figure out if an applicant with a handicap can successfully perform, and if so what specific conditions do not affect job performance	1	2	3	4	5	6	7	8	9	10	
4. Determines if specialized equipment is needed to ensure adequate productivity	1	2	3	4	5	6	7	8	9	10	
5. Provides a job coach for 1-4 weeks to teach an employee with a severe handicap relevant job skills, procedures and work behaviors to enable the employee to meet standards established by the employer	1	2	3	4	5	6	7	8	9	10	
6. Identifies architectural barriers and devises specifications for ramps or methods of removing these barriers	1	2	3	4	5	6	7	8	9	10	
7. Handles all paper work needed for a federal tax credit if your organization qualifies when hiring an employee with a handicap	1	2	3	4	5	6	7	8	9	10	
8. Handles all paper work related to second injury certification needed to certify new hires with heart or back problems diabetes, or epilepsy	1	2	3	4	5	6	7	8	9	10	
9. Helps you meet the federal compliance requirements related to workers with a handicap	1	2	3	4	5	6	7	8	9	10	
<u>For Project SYNERGEE Employers and BAC members only</u>											
10 Ability to conduct business with the same service agency in a networking program	1	2	3	4	5	6	7	8	9	10	

Part III Next, I would like you to evaluate the performance of the "Projects with Industry" program that you have been working with. Please use a "1" to indicate Poor performance and a "10" to indicate Excellent performance. If the program does not perform any of the services, circle the N/A.

	Poor										Excellent
1. Ability to conduct business with the same individual in the program over a long period of time	1	2	3	4	5	6	7	8	9	10	N/A
2. Using employer-determined specification applicants are pre-screened before referral to you	1	2	3	4	5	6	7	8	9	10	N/A
3. Provides an ample supply of qualified candidates	1	2	3	4	5	6	7	8	9	10	N/A
4. Ability to contact the organization's representative when problems arise	1	2	3	4	5	6	7	8	9	10	N/A
5. Training programs equip applicants with the specific skills needed in your business	1	2	3	4	5	6	7	8	9	10	N/A
6. Provides a ready supply of employees to work as temporaries or interns in your business	1	2	3	4	5	6	7	8	9	10	N/A
7. Conducts job analyses to figure out the skills required to effectively do specific jobs	1	2	3	4	5	6	7	8	9	10	N/A
8. Actively solicits your input so that training program content reflects skills needed for jobs in your organization	1	2	3	4	5	6	7	8	9	10	N/A
9. Actively solicits your input regarding skills assessment procedures	1	2	3	4	5	6	7	8	9	10	N/A
10. Willing to accept your input regarding methods for determining if an individual is ready to work	1	2	3	4	5	6	7	8	9	10	N/A
11. Fully evaluates skills through appropriate skills testing before recommending a job candidate	1	2	3	4	5	6	7	8	9	10	N/A
12. Provides adequate advance notice when the organization cannot meet your forecast manpower needs	1	2	3	4	5	6	7	8	9	10	N/A
13. Are a reliable source of qualified employees on a continuing basis	1	2	3	4	5	6	7	8	9	10	N/

14. Makes it easy to do business with them by establishing routine procedures for your transactions	1	2	3	4	5	6	7	8	9	10	N/A
15. Are predictable in their methods of operation "No Surprises"	1	2	3	4	5	6	7	8	9	10	N/A
16. The placement Representative is courteous and helpful	1	2	3	4	5	6	7	8	9	10	N/A
17. The placement Representative displays a genuine interest in satisfying your organization personnel needs	1	2	3	4	5	6	7	8	9	10	N/A
18. The Representative is dependable and eagerly pursues the relationship with your organization	1	2	3	4	5	6	7	8	9	10	N/A
19. Reduces your organization's workload when searching for and evaluating job applicants	1	2	3	4	5	6	7	8	9	10	N/A
20. Reduces your organization's risk of making a bad hiring decision	1	2	3	4	5	6	7	8	9	10	N/A
21. Routinely follows up on each placement to ensure a good job match	1	2	3	4	5	6	7	8	9	10	N/A
22. Places applicants for a trial work period to evaluate the match between the applicant and the employer	1	2	3	4	5	6	7	8	9	10	N/A

Part IV. Now please evaluate the performance of the PWI that you are working with on each of the service factors with respect to applicants with handicaps. As before, use a 1 to indicate Poor performance and a 10 to indicate Excellent performance.

	Poor										Excellent
1. Assists in preparing managers and co-workers to work successfully with individuals with a handicap	1	2	3	4	5	6	7	8	9	10	
2. Determines how job duties, work flow and/or work environment may be restructured to enable an applicant with a handicap to successfully do a job	1	2	3	4	5	6	7	8	9	10	

	Poor										Excellent
3. Analyzes basic job components to figure out if an applicant with a handicap can successfully do and which specific conditions do not affect job performance	1	2	3	4	5	6	7	8	9	10	
4. Determines if specialized equipment is needed to ensure adequate productivity	1	2	3	4	5	6	7	8	9	10	
5. Provides a job coach for 1-4 weeks to teach an employee with a severe handicap relevant job skills, procedures and work behaviors to enable the employee to meet standards established by the employer	1	2	3	4	5	6	7	8	9	10	
6. Identifies architectural barriers and devises specifications for ramps or methods of removing these barriers	1	2	3	4	5	6	7	8	9	10	
7. Handles all paper work needed for a federal tax credit if your organization qualifies when hiring an employee with a handicap	1	2	3	4	5	6	7	8	9	10	
8. Handles all paper work related to second injury certification needed to certify new hires with heart or back problems diabetes, or epilepsy	1	2	3	4	5	6	7	8	9	10	
9. Helps you meet the federal compliance requirements related to workers with a handicap	1	2	3	4	5	6	7	8	9	10	
<u>For Project SYNERGEE Employers and BAC members only</u>											
10. Ability to conduct business with the same service agency in a networking program	1	2	3	4	5	6	7	8	9	10	

Part V. We would like you to address now some of the direct and indirect reasons for your participation with the Projects with Industry program. Could you please rate the following factors as to their important for your participation in an advisory capacity to the PWI program. As before, rate each of following factors on a scale from "1" to "10". Use a "1" for factors that are not at all important and a "10" for factors that are Very Important.

	Not at All Important							Very Important		
1. Provides positive public relations for my company	1	2	3	4	5	6	7	8	9	10
2. Provides an opportunity for me to "do good" for others in need	1	2	3	4	5	6	7	8	9	10
3. Consultative assistance with affirmative action	1	2	3	4	5	6	7	8	9	10

	Not at All Important							Very Important		
4. Opportunity to interact with peers on a regular bases	1	2	3	4	5	6	7	8	9	10
5. Opportunity to enhance my personal employment level and/or status	1	2	3	4	5	6	7	8	9	10
6. Provides awareness training on how to interact with people with handicaps	1	2	3	4	5	6	7	8	9	10
7. Opportunity to preview workers with handicaps in a training context for possible hire	1	2	3	4	5	6	7	8	9	10
8. Compliance with corporate policy or directives to participate in community-based programs	1	2	3	4	5	6	7	8	9	10
9. Provides post-employment services such as work adjustment, counseling, intervention with personal problems, and assistance with termination if needed	1	2	3	4	5	6	7	8	9	10
10. Direct compensation for participation	1	2	3	4	5	6	7	8	9	10
11. Provides workers to fill labor shortages	1	2	3	4	5	6	7	8	9	10
12. Consultative assistance to obtain employment incentives such as Target Job Tax Credits, and government contracts	1	2	3	4	5	6	7	8	9	10
13. Other (please specify)_____										
	1	2	3	4	5	6	7	8	9	10

About how many graduates from these three Projects with Industry programs has your organization employed _____

About how many employees are there at your location? _____

Does your organization currently employ any handicapped workers?
Yes _____ No _____ Not now, but did in past _____

How did you become aware of the vocational rehabilitation program (s) you checked?

How many years have you been with your organization? _____

Is there anyone in your immediate family with a disability?
Yes _____ No _____

The three Projects with Industry programs appreciate your assistance in this important effort.

Leonard C. Kercher Center for Social Research



Kalamazoo, Michigan 49008-5189

WESTERN MICHIGAN UNIVERSITY

February 14, 1990

There are several Vocational Rehabilitation training and placement programs in Michigan that assist persons with handicaps to find employment. These programs are partially funded by a Rehabilitation Service Administration program known as Projects with Industry. They include: Project NICHE at the State Technical Institute and Rehabilitation Center (STIRC); Project SYNERGEE (Calhoun Area Vocational Center); and the Pine Lake Project (formally the Saga/Marriott project).

These programs would like **your** help to find out how they might improve their services. They would like to know your opinions about some factors that might be important when you decide to hire a person with a handicap.

You are part of a scientifically drawn, random sample. Therefore, your participation is very important to the quality of the data. No individuals or organizations will be identified in the report, and all responses will be kept completely confidential. Please be candid in your remarks.

Please complete the questionnaire and return it to the Center for Social Research at Western Michigan University in the enclosed postage paid, return envelope. A summary of the results will be made available to all participants. Thank you for your time and your cooperation.

Sincerely,

A handwritten signature in dark ink, appearing to read "Thomas H. VanValey".

Dr. Thomas VanValey, Associate Director
Center for Social Research

Appendix B
MRS Telephone Survey

**WAYNE STATE UNIVERSITY
A STUDY OF EMPLOYER PERCEPTIONS
OF PLACEMENT ORGANIZATIONS**

MRSQUES.DOC DISK: LEWIS #3	DATE _____	START TIME _____	INTERVIEWER _____	STOP TIME _____
APPT. WITH: _____		PHONE # _____		
TITLE _____		ORGANIZATION NAME: _____		
CALLBACK DAY _____		DATE _____	TIME _____	
CALLBACK START TIME _____		CALLBACK STOP TIME _____		

PART I:

Will you please connect me with your personnel department?

If secretary asks what type of job you are looking for tell her non-management.

Can you tell me who is directly involved in making the hiring decisions?

Write name and title on top of page.

May I please speak with (MR/MRS last name)?

If the person is not available arrange for call back.

Good (morning/afternoon MR/MRS name). My name is _____ and I work for Wayne State University. Presently the marketing department at Wayne State is conducting a marketing research study to measure the quality of service provided by various organizations that help employers such as yourself find new employees.

When I say "organizations that help you find new employees" this can include universities, high schools, vocational or technical schools, co-op programs, placement agencies, or any other organization that you may use to find new employees.

1. Have you had any previous experience with organizations that help you find new employees?

No _____
Yes _____

*If no, continue at 3 on page 2.
If yes, ask:*

2. Have you had contact with one or more of these organizations in the past two years?

NO _____
Yes _____

*If no, continue at 3 on page 2.
If yes, continue at 2A on page 2.*

Ask if respondent had contact within the past two years:

2A. Great, do you think that you could donate some time for an interview? If you are free right now we can do it over the phone. Or, if you are busy now we can set up a time for later this week (or next week). When would it be more convenient for you?

*If OK now fill in start time and begin at part II on page 3.
If inconvenient now set up date and time.*

What is a good day for you? How about (time)? Good, then I will call you on (day and date) at (time). Good bye.

Record callback day, date, and time at top of page one.

Ask if respondent said no to Q1 or Q2:

3. Is there any special reason why you have not used any outside organizations to assist you (recently)?

too expensive _____
did not know about services offered _____
have not needed to hire _____
other _____

4. Under what conditions would using an organization to help find new employees appeal to you?

no cost _____
other (probe) _____

It would really be helpful to our research if you would donate a few minutes for an interview. If you are free right now we can do it over the phone. Or, if you are busy now we can set up a time for later this week (or next week). When would it be most convenient for you?

*If OK now fill in start time and begin at part II on page 3.
If inconvenient now set up date and time.*

What is a good day for you? How about (time)? Good, then I will call you on (day and date) at (time). Goodbye.

Record call back day, date and time at top of page one.

PART II: IMPORTANCE OF DECISION VARIABLES

Now, I am going to read you a list of service factors which may or may not be important to you if you were to start a relationship with an organization that helps you find new employees. As I read each factor, I'd like you to rate it on a scale from "1" to "10". Use a "1" for factors that are Not At All important. Use a "10" for factors that are Essential if you are to use the organization as a source of new employees. Of course, you may use any number between "1" and "10".

How would you rate the importance of

(start with first factor and continue through list).

	Not At All										Essential
1. Ability to conduct business with the same individual in the placement organization over a long period of time.	1	2	3	4	5	6	7	8	9	10	
2. Using employer-determined specifications, applicants are pre-screened and the most qualified applicants are referred to you.	1	2	3	4	5	6	7	8	9	10	
3. Ample supply of qualified candidates.	1	2	3	4	5	6	7	8	9	10	
4. Ability to contact the organization's rep when problems arise.	1	2	3	4	5	6	7	8	9	10	
5. Training programs that equip applicants with the specific skills needed in your organization.	1	2	3	4	5	6	7	8	9	10	
6. Provide a ready supply of employees to work as temporaries or interns in your organization.	1	2	3	4	5	6	7	8	9	10	
7. Conduct job analyses to determine the skills required to effectively perform specific jobs.	1	2	3	4	5	6	7	8	9	10	
8. Actively solicit your input so that training program content reflects skills needed for jobs in your organization.	1	2	3	4	5	6	7	8	9	10	
9. Actively solicit your input regarding skills assessment procedures.	1	2	3	4	5	6	7	8	9	10	
10. Willing to accept your input regarding methods for determining if an individual is ready to work.	1	2	3	4	5	6	7	8	9	10	
11. Fully evaluate skills through appropriate skills testing before recommending a job candidate.	1	2	3	4	5	6	7	8	9	10	

Part II: Continued.

	Not at All										Essential
12. Provide adequate advance notice when the organization cannot meet your forecasted manpower needs.	1	2	3	4	5	6	7	8	9	10	
13. Prove to be a reliable source of qualified employees on a continuing basis.	1	2	3	4	5	6	7	8	9	10	
14. Make it easy to do business with them by establishing routine procedures for your transactions.	1	2	3	4	5	6	7	8	9	10	
15. Are predictable in their methods of operation. "No surprises".	1	2	3	4	5	6	7	8	9	10	
16. The placement Rep is courteous and helpful.	1	2	3	4	5	6	7	8	9	10	
17. The placement Rep display a genuine interest in satisfying your organization's personnel needs.	1	2	3	4	5	6	7	8	9	10	
18. The Rep is dependable and eagerly pursues the relationship with your organization.	1	2	3	4	5	6	7	8	9	10	
19. Reduce your organization's workload when searching for and evaluating job applicants.	1	2	3	4	5	6	7	8	9	10	
20. Reduces your organization's risk of making a bad hiring decision.	1	2	3	4	5	6	7	8	9	10	
21. Routinely follow up on each placement to ensure a good job match.	1	2	3	4	5	6	7	8	9	10	
22. Place applicants for a trial work period to evaluate the match between the applicant and the employer.	1	2	3	4	5	6	7	8	9	10	

PART III: IMPORTANCE OF HANDICAPPED SPECIFIC DECISION VARIABLES

Now I'd like you to rate the importance of some service factors which you may or may not consider important when you are starting a relationship with an organization that represents handicapped applicants. Please rate each service using a scale from 1 to 10 where 1 is a service that is Not At All important to you and 10 is a service that is Essential to the development of a satisfactory relationship.

	Not at All					Essential				
	1	2	3	4	5	6	7	8	9	10
1. Determines if specialized equipment is needed to ensure adequate productivity.										
2. Analyzes basic job components to determine if a handicapped applicant can successfully perform and if so, identifies which specific handicaps do not impair job performance.										
3. Determines how job duties, workflow and/or work environment may be restructured to enable an otherwise qualified handicapped applicant to successfully perform a job.										
4. Provides a job coach for 1-4 weeks to teach a severely handicapped employee relevant job skills, procedures and work behaviors to enable the employee to meet standards established by the employer.										
5. Assists in preparing managers and co-workers to successfully work with a handicapped individual.										
6. Identifies architectural barriers and devises specs for ramps or other methods of removing these barriers.										
7. Handles all paper work needed for a federal tax credit if your organization qualifies when hiring a handicapped employee.										
8. Handles all paper work related to second injury certification needed to certify new hires with heart or back problems, diabetes or epilepsy.										
9. Helps you meet the federal handicapped compliance requirements.										

*For respondents that have not had previous experience skip to part VII on page 10.
All others continue with part IV on the next page.*

Ask if respondent had contact within the past two years:

PART IV: CURRENT PRACTICES

1. What are the names of the organizations that have supplied you with applicants in the past two years? (record names below and then, for each organization ask Q2-Q5.)
2. Approximately, how many employees hired in the past two years were represented by (say name of organization)?
3. How did you become aware of (say name of organization)?
4. What is it about (say name of organization) that really appeals to you?
5. Using a scale of 1 to 10 indicate how satisfied you are with (say name of organization). Use a 1 to indicate that you are not satisfied and would terminate the relationship if you had an alternative source. Reserve a 10 for those organizations you believe contribute significantly to your hiring efforts.

Q1 Names	Q2 # of New Hires	Q3 Method of Awareness	Q4 Distinctive Characteristic	Q5 Not Satisfied	Very Satisfied
				1 2 3 4 5 6 7 8 9 10	

6. Have you had experience with organizations that represent the deaf, blind, mildly retarded, or physically handicapped within the last 2 years?
No _____ Yes _____
7. Within the past two years, have you had contact with Michigan Rehabilitation Services, the Bureau of Rehabilitation, Voc Rehab, or the Michigan Department of Education?
No _____ Yes _____

If respondent answers no to both Q6 and Q7 then see instructions for part V on next page. Otherwise, ask Q2-Q5 above, then see instructions for part V on next page.

INSTRUCTIONS FOR PART V:

If respondent has had contact with MRS in last 2 years, use MRS for part V. Otherwise use the organization that supplied respondent with largest number of new hires in last 2 years.

PART V: DECISION VARIABLES USED TO MEASURE PERFORMANCE

Now, I would like you to evaluate the performance of (Say and then write-in the Name of Primary Organization: _____) on the service factors that you just rated. Please use a "1" to indicate Poor performance and a "10" to indicate Excellent performance. Remember you can use any number between "1" and "10". Also, please tell me if [(say name of primary organization)] does not perform any of the services as I read the descriptions to you.

	Poor										Excellent	
1. Ability to conduct business with the same individual in the placement organization over a long period of time.	1	2	3	4	5	6	7	8	9	10	NA	
2. Using employer-determined specifications, applicants were pre-screened and the most qualified applicants were referred to you.	1	2	3	4	5	6	7	8	9	10	NA	
3. Ample supply of qualified candidates.	1	2	3	4	5	6	7	8	9	10	NA	
4. Ability to contact the organization's rep when problems arose.	1	2	3	4	5	6	7	8	9	10	NA	
5. Training programs that equipped applicants with the specific skills needed in your organization.	1	2	3	4	5	6	7	8	9	10	NA	
6. A ready supply of temporary employees or interns to work in your organization.	1	2	3	4	5	6	7	8	9	10	NA	
7. Conducted job analyses to determine the skills required to effectively perform specific jobs.	1	2	3	4	5	6	7	8	9	10	NA	
8. Actively solicited your input so that training program content reflected skills needed for jobs in your organization.	1	2	3	4	5	6	7	8	9	10	NA	
9. Actively solicited your input regarding skills assessment procedures.	1	2	3	4	5	6	7	8	9	10	NA	
10. Willing to accept your input regarding methods for determining if an individual was ready to work.	1	2	3	4	5	6	7	8	9	10	NA	

PART V: Continued.

	Poor										Excellent
11. Fully evaluated skills through appropriate skills testing before recommending a job candidate.	1	2	3	4	5	6	7	8	9	10	NA
12. Adequate advance notice when the organization could not meet your forecasted manpower needs.	1	2	3	4	5	6	7	8	9	10	NA
13. Proved to be a reliable source of qualified employees on a continuing basis.	1	2	3	4	5	6	7	8	9	10	NA
14. Made it easy to do business with them by establishing routine procedures for your transactions.	1	2	3	4	5	6	7	8	9	10	NA
15. Were predictable in their methods of operation. "No surprises".	1	2	3	4	5	6	7	8	9	10	NA
16. The placement Rep was courteous and helpful.	1	2	3	4	5	6	7	8	9	10	NA
17. The placement Rep displayed a genuine interest in satisfying your organization's personnel needs.	1	2	3	4	5	6	7	8	9	10	NA
18. The Rep was dependable and eagerly pursued the relationship with your organization.	1	2	3	4	5	6	7	8	9	10	NA
19. Reduced your organization's workload when searching for and evaluating job applicants.	1	2	3	4	5	6	7	8	9	10	NA
20. Reduced your organization's risk of making a bad hiring decision.	1	2	3	4	5	6	7	8	9	10	NA
21. Routinely followed up on each placement to ensure a good job match.	1	2	3	4	5	6	7	8	9	10	NA
22. Placed applicants for a trial work period to evaluate the match between the applicant and the employer.	1	2	3	4	5	6	7	8	9	10	NA

INSTRUCTIONS FOR PART VI:

If no contact with organization representing the handicapped continue with part VII on page 10. If respondent has had contact with an organization representing the handicapped use this organization for part VI.

PART VI: DECISION VARIABLES USED TO MEASURE HANDICAPPED SPECIFIC PERFORMANCE

Now I'd like you to evaluate the performance of (say and write-in Name of Primary Handicapped Organization from Q6, Part IV on page 6: _____) on each of the service factors we just reviewed. Use a 1 to indicate Poor performance and a 10 to indicate Excellent performance. Of course you can use any number between 1 and 10. Also, if (say name of primary handicapped organization) didn't/doesn't provide some of these services please tell me which services as I read the descriptions to you.

	Poor										Excellent
9. Determined if specialized equipment is needed to ensure adequate productivity of handicapped applicants.	1	2	3	4	5	6	7	8	9	10	NA
10. Analyzed basic job components to determine if the handicapped applicant could successfully perform and if so, identified which specific handicaps did not impair job performance.	1	2	3	4	5	6	7	8	9	10	NA
11. Determined how job duties, workflow and/or work environment could be restructured to enable an otherwise qualified handicapped applicant to successfully perform the job.	1	2	3	4	5	6	7	8	9	10	NA
12. Provided a job coach for 1-4 weeks to teach a severely handicapped employee relevant job skills, procedures and work behaviors to enable the employee to meet standards established by the employer.	1	2	3	4	5	6	7	8	9	10	NA
13. Assisted in preparing managers and co-workers to successfully work with the handicapped individual.	1	2	3	4	5	6	7	8	9	10	NA
14. Identified architectural barriers and devised specs for ramps or other methods of removing these barriers.	1	2	3	4	5	6	7	8	9	10	NA
15. Handled all paper work needed for a federal tax credit if your organization qualified when hiring a handicapped employee.	1	2	3	4	5	6	7	8	9	10	NA
16. Handled all paper work related to second injury certification needed to certify new hires with heart or back problems, diabetes or epilepsy.	1	2	3	4	5	6	7	8	9	10	NA
17. Helped you meet the federal handicapped compliance requirements.	1	2	3	4	5	6	7	8	9	10	NA

PART VII: ORGANIZATIONAL CHARACTERISTICS

Next I'd like to get some basic information about your organization.

1. How many employees are in the entire organization? _____
2. How many employees are there at your location? _____
3. How many locations are there? _____
4. Approximately, how many new hires (all jobs) were there at your location in 1986? _____
5. Approximately, how many new hires (all jobs) were there at your location in 1987? _____
6. Roughly, what percentage of the new hires for 1986 and 1987 combined were placed into non-management positions?
 100 - 75% _____
 74 - 50% _____
 49 - 25% _____
 24 - 0% _____
7. Do you expect the number of new hires to increase, decrease, or stay the same for 1988? (check one)
 increase _____ decrease _____ same _____
8. Is the personnel function in your organization centralized or decentralized?
 centralized _____ decentralized _____
9. What is the function of the personnel department? (check all that apply)
 a. to identify job candidates _____
 b. to assess applicants qualifications _____
 c. to select new employees _____
 d. other _____
10. Specifically, what is your role in making the hiring decisions? (check all that apply)
 a. screen all applicants _____
 b. recommend applicants to managers _____
 c. share hiring responsibilities with another _____
 d. sole decision maker _____
 e. other _____
11. Who is the final decision maker? (check one)
 a. department head _____
 b. supervisor _____
 c. other _____

12. Does your organization currently have any handicapped workers? Yes ☐ No ☐
 No, but did in past ☐

If "yes" or "no, but did in past," ask for each employee:

Employee	Job Title	Placement Source	Length of Employment	Reason For Leaving If "No, but did in past"
A				
B				
C				

PART VIII: RESPONDENT CHARACTERISTICS

I'd like to finish the interview by asking you a few questions about yourself.

- What is your job title? _____
- What are your major job responsibilities? _____
- How many years have you been with this organization? _____
- How many years have you been in this position? _____
- What is your birth year? _____
- What is the highest level of education that you completed? (check one)
 - Some high school _____
 - High school diploma _____
 - Some college _____
 - College graduate _____
 - Graduate courses/degree _____
- Can you name some of the professional or industry journals that you read on a regular basis?
- Are you active in any professional or industry organizations?

no ☐ yes ☐ If yes, ask:
- What are the names of these organizations and their purposes?

Organization Name

Purpose

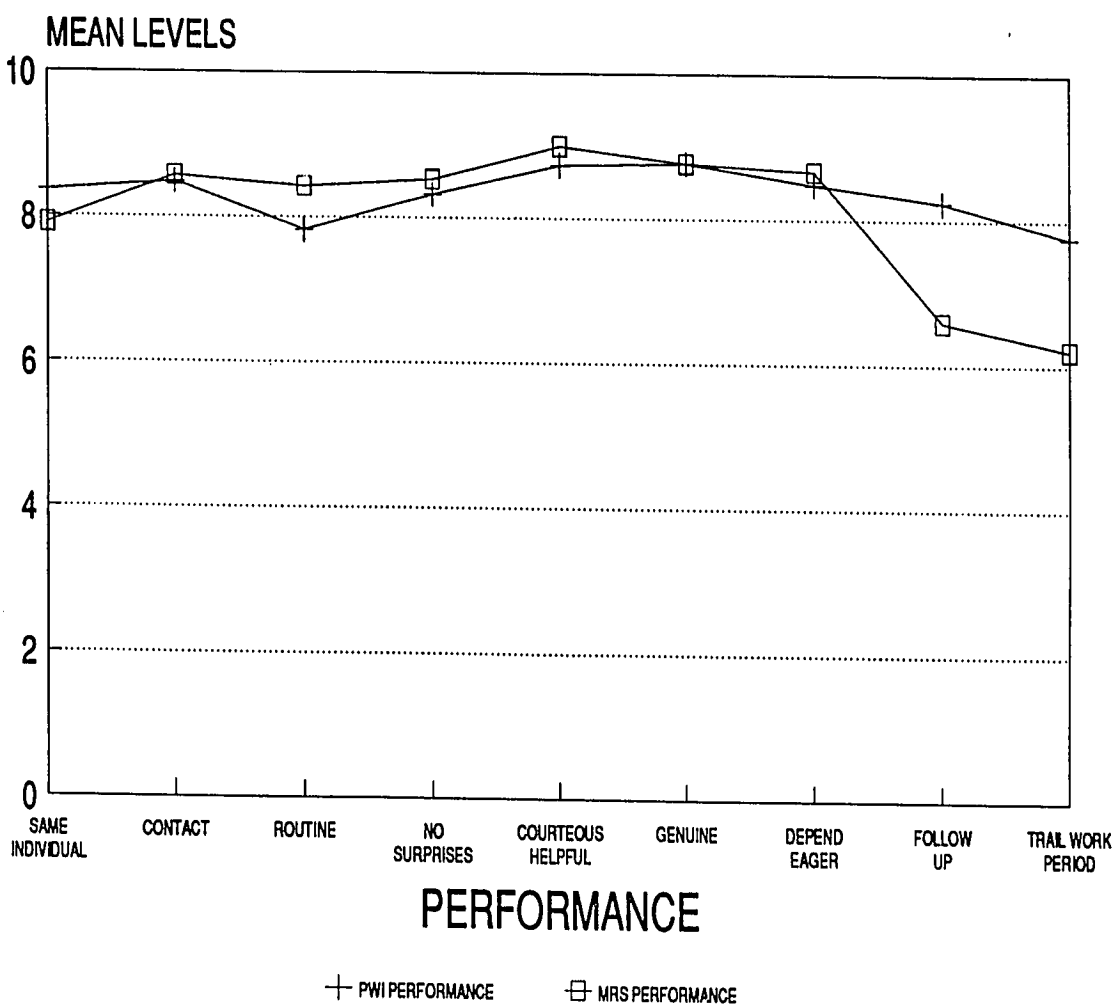
_____	_____
_____	_____

Thank you for taking this time to be interviewed. Have a nice day.

Appendix C
Comparison Graphs of the Five Marketing Factors

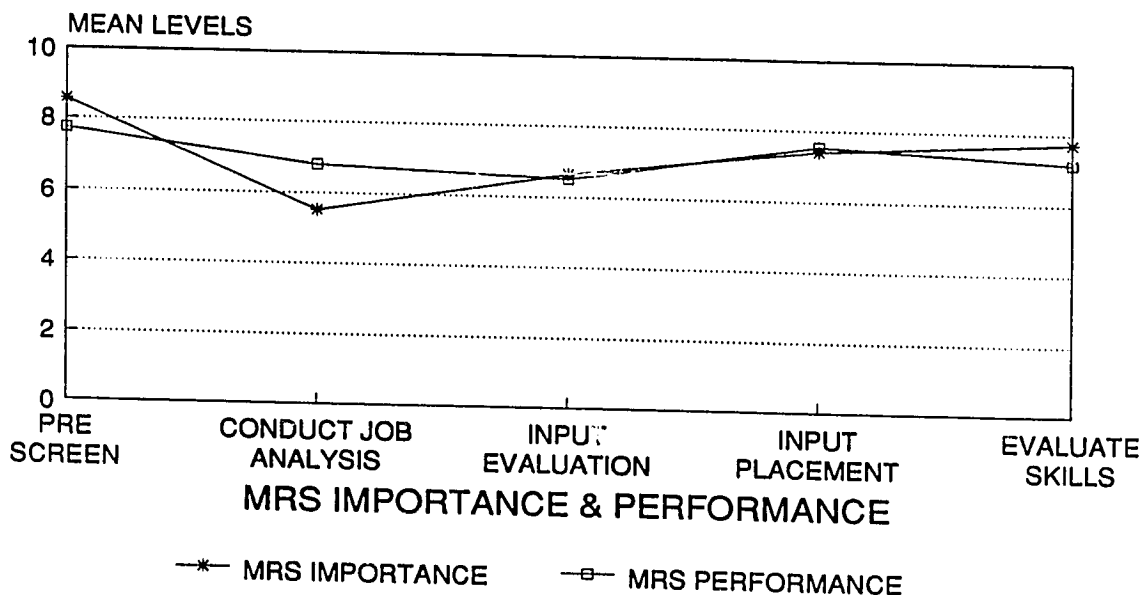
RELATIONSHIP MANAGEMENT FACTORS

MI PWIs and MRS PERFORMANCE



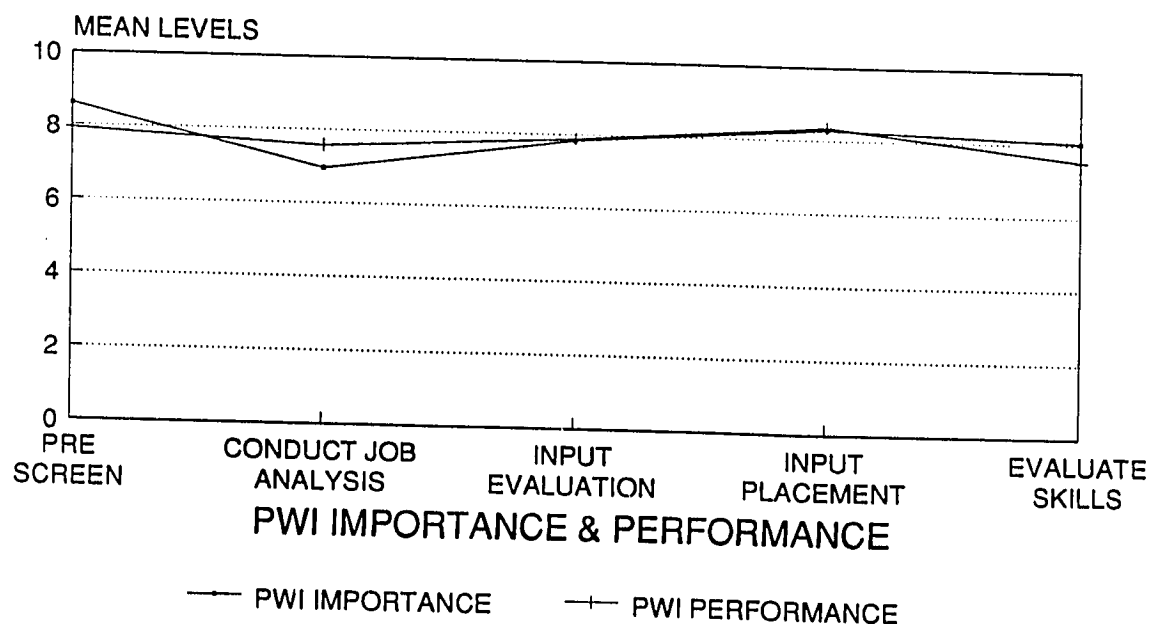
SCREENING FACTORS

MRS IMPORTANCE AND PERFORMANCE

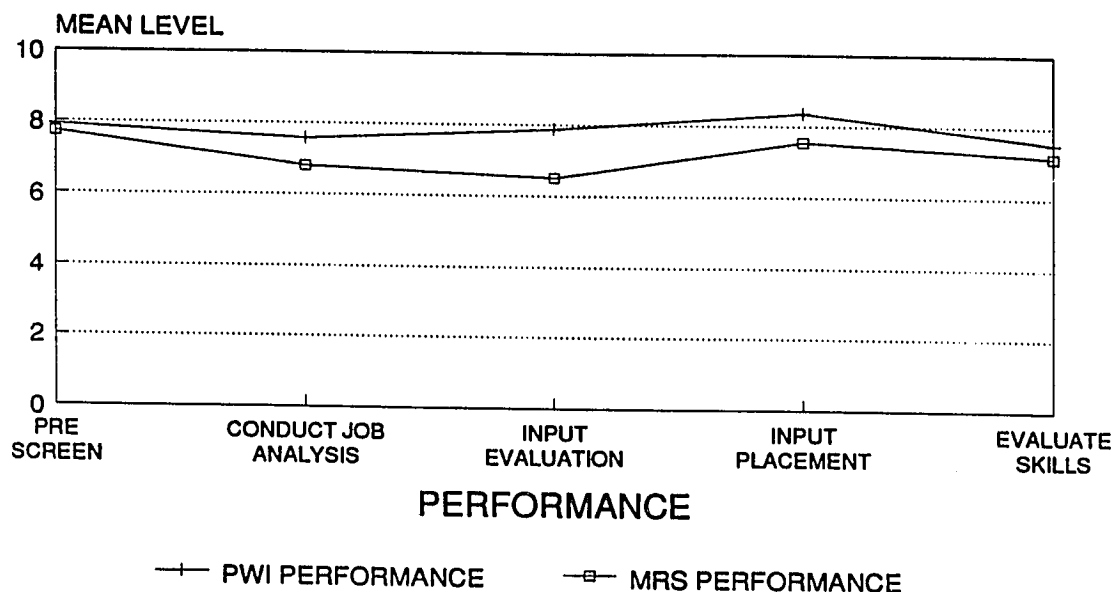


SCREENING FACTORS

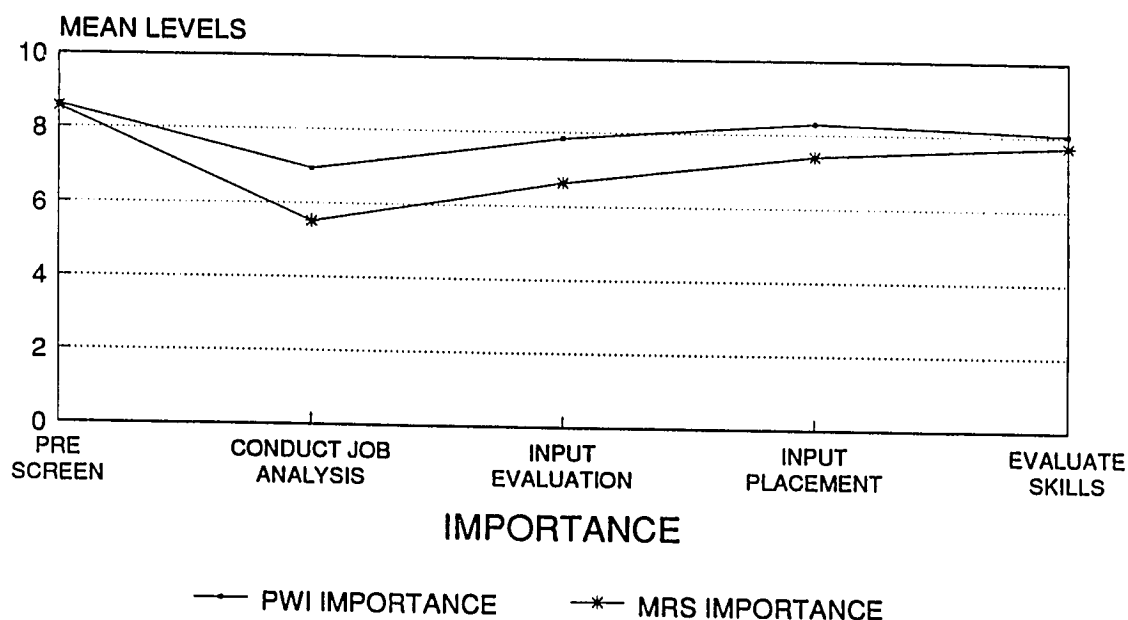
PWI IMPORTANCE AND PERFORMANCE



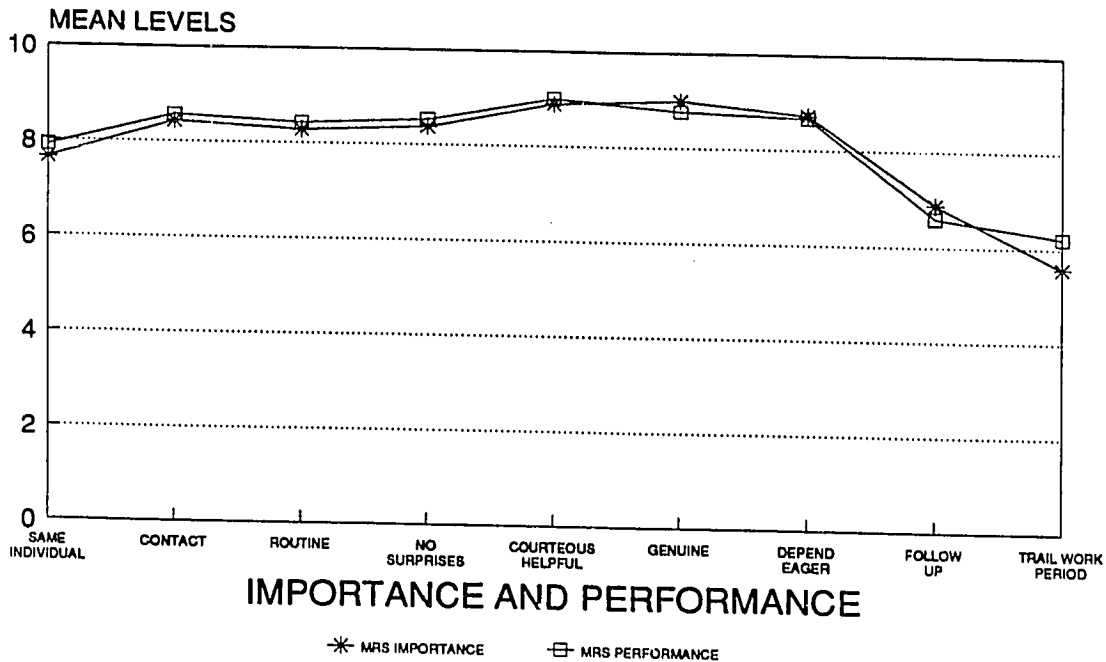
SCREENING FACTORS PWI & MRS PERFORMANCE



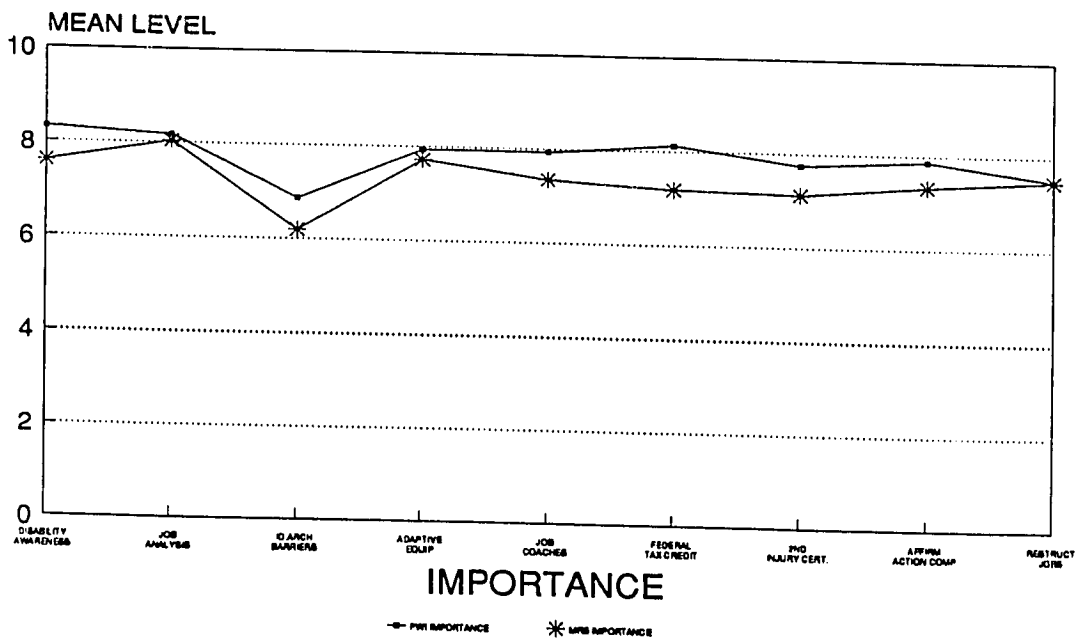
SCREENING FACTORS PWI & MRS IMPORTANCE



RELATIONSHIP MANAGEMENT FACTORS MRS IMPORTANCE AND PERFORMANCE

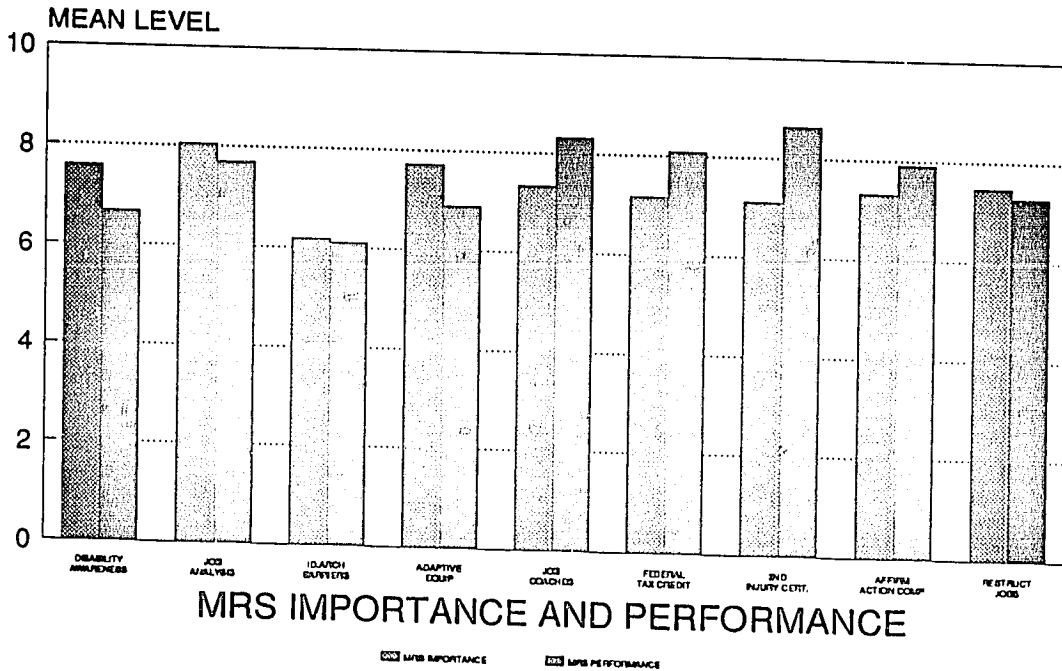


HANDICAPPER SPECIFIC FACTORS MRS AND PWI IMPORTANCE



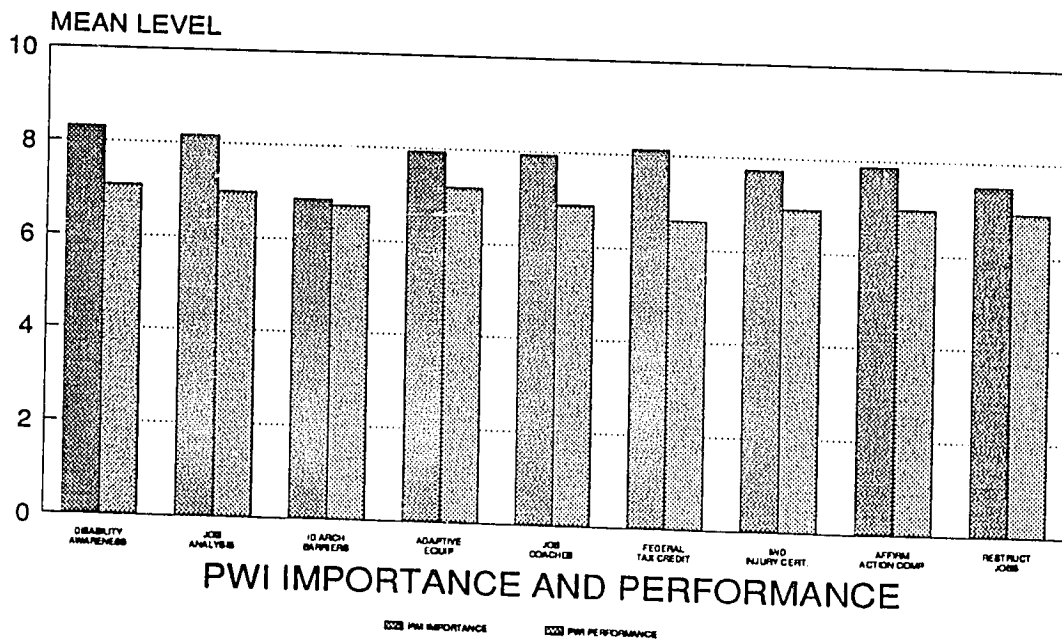
HANDICAPPER SPECIFIC FACTORS

MRS IMPORTANCE AND PERFORMANCE



HANDICAPPER SPECIFIC FACTORS

PWI IMPORTANCE AND PERFORMANCE



Appendix D
PWI Program Write-Up

I-NABIR

The Association of Projects with Industry

Fact Sheet Projects With Industry

Projects With Industry has been part of the Rehabilitation Act since 1968 when the Department of Health, Education and Welfare was given authority to fund cooperative arrangements for rehabilitation organizations and private employers to develop job placement programs to provide competitive employment for persons with disabilities. Over the past 22 years PWI has funded many innovative projects which have included major corporations, unions, rehabilitation facilities, small businesses, advocacy organizations and national trade associations.

The purpose of PWI is to, "promote opportunities for competitive employment of individuals with handicaps, provide appropriate placement resources, to engage the talent and leadership of private industry as partners in the rehabilitation process, to create practical settings for job readiness and training programs, and to secure the participation of private industry in identifying and providing job opportunities and the necessary skills and training to qualify people with handicaps for competitive jobs". (Section 621(a)(1) of the Rehabilitation Act of 1973, as amended.)

In 1988 the Rehabilitation Services Administration collected the first comprehensive data from all of the current PWIs. This data, collected in August 1988 covered the period from October 1, 1986 to September 30, 1987. The total amount of Federal PWI funds reported was \$15.75 million. Over 13,500 persons with disabilities were placed into competitive employment. More than 60% of these persons were severely disabled. Over 3000 were on Supplemental Security Income (SSI) or Social Security Disability Insurance prior to being placed into a job through PWI. The average cost per placement (Federal dollars) was \$1164. The average person placed improved their income by \$8260 a year. Their average earnings per year was \$10,622.

Just as impressive, if not more so, is what these PWI graduates give back to their communities and to the Federal government when they get a job. Based on the above figures the PWI graduates for that one year will earn more than \$143 million a year. This is money that will go back into our economy. The Social Security withholding tax (FICA) from the individuals and their new employers will total more than \$27 million. For the 3000 former SSI and SSDI recipients the Federal government will save over \$16 million a year. Assuming that the average PWI graduate is a single taxpayer with no dependents, the graduates from that one year will pay over \$11.5 million in income taxes. For a Federal expenditure of \$15.75 million the Federal government will get back or save over \$54 million in one year. This is \$3.42 for each Federal dollar spent on PWI in one year. PWI graduates will continue working for many years and these savings will multiply.

Several major studies have shown that PWI has been successful in attaining its goals of placing persons with disabilities into competitive jobs. A 1983 study found that through its private sector linkages PWI was successful and that the diversity of organizations operating PWI's and the flexibility of the projects were important factors in its overall effectiveness. A 1982 study concluded "there is no doubt that a secure linkage between rehabilitation organizations and employers is the optimal avenue for disabled persons back into the economic mainstream." A 1986 study, mandated by the Rehabilitation Act amendments of 1984, concluded that, "In general, PWI projects are experiencing success in their efforts to assist persons with disabilities in obtaining competitive jobs. The relatively low cost per placement, especially for older projects, suggests that PWI projects are accomplishing their goals in an efficient manner."

Projects With Industry is funded at \$19.925 million for FY 1991. It was only one of two programs under the Rehabilitation Act of 1973 that was funded at its full authorization level for 1991.

PWI is part of the Rehabilitation Act of 1973, which is up for reauthorization in 1991.

For more information, please contact Charles Harles, I-NABIR Executive Director.

INTER-NATIONAL ASSOCIATION OF BUSINESS, INDUSTRY and REHABILITATION
P.O. Box 15242 (1018 South Carolina Avenue SE) Washington, DC 20003
202 543-6353 FAX: 202 546-2854



I-NABIR

The Association of Projects with Industry

Reauthorization of Projects With Industry and the Rehabilitation Act of 1973

The Inter-National Association of Business, Industry, and Rehabilitation (I-NABIR) is the national association for Projects With Industry. I-NABIR believes that Projects With Industry can and should be a major means of placing more persons with disabilities into community, competitive jobs. The current authorization for the Rehabilitation Act expires at the end of fiscal year 1991 (September 30, 1991).

Projects With Industry has been part of the Rehabilitation Act since 1968 when the Department of Health, Education and Welfare was given authority to fund cooperative arrangements for rehabilitation organizations and private employers to develop job placement programs to provide competitive employment for persons with disabilities. Over the past 22 years PWI has funded many innovative projects which have included major corporations, unions, rehabilitation facilities, small businesses, advocacy organizations and national trade associations.

In 1988 when funding for PWI was \$15.75 million over 13,500 persons with disabilities were placed into competitive employment. More than 60% of these persons were severely disabled. Over 3000 were on Supplemental Security Income (SSI) or Social Security Disability Insurance prior to being placed into a job through PWI. The average cost per placement (Federal dollars) was \$1164. The average person placed improved their income by \$8260 a year. Their average earnings per year was \$10,622. PWI graduates for that one year earned more than \$143 million a year. The Social Security withholding tax (FICA) from the individuals and their new employers totaled more than \$27 million. For the 3000 former SSI and SSDI recipients the Federal government saved over \$16 million a year. Assuming that the average PWI graduate is a single taxpayer with no dependents, the graduates from that one year paid over \$11.5 million in income taxes. For a Federal expenditure of \$15.75 million the Federal government got back or saved over \$54 million in one year. This is \$3.42 for each Federal dollar spent on PWI in one year. PWI graduates will continue working for many years and these savings will multiply.

PWI should be significantly expanded in the reauthorization of the Rehabilitation Act of 1973. The recommendations of I-NABIR include:

- Recognition of PWI as a service delivery mechanism
- Significant increase in funding
- Expansion of technical assistance
- Utilize PWI as a major link between the business community, organized labor, and rehabilitation

If Congress decides only to reauthorize the Rehabilitation Act for one year with the major reauthorization to come next year, then authorization levels should be set for FY1992 that will allow PWI and other rehabilitation programs to meet a very real need in the meantime.

Specific recommendations and specific statutory language to accomplish the above objectives are available from Charles Harles, I-NABIR Executive Director, at the address or phone numbers listed below.

INTER-NATIONAL ASSOCIATION OF BUSINESS, INDUSTRY and REHABILITATION
P.O. Box 15242 (1018 South Carolina Avenue SE) Washington, DC 20003
202 543-6353 FAX: 202 546-2854



Consortium for Citizens with Disabilities*

REHABILITATION SERVICES PROJECTS WITH INDUSTRY

FY 1990 <u>Appropriation</u> 18.77	FY 1991 <u>Appropriation</u> 19.93	FY 1992 <u>Authorization</u> pending	President's FY 1992 Request pending	CCD FY 1992 <u>Recommendation</u> 50
(in millions)				

PROGRAM DESCRIPTION: Projects With Industry has been part of the Rehabilitation Act, Title VI part B, since 1968 when the Department of Health, Education and Welfare was given authority to fund cooperative arrangements for rehabilitation organizations and private employers to develop job placement programs to provide competitive employment for persons with disabilities. Over the past 22 years PWI has funded many innovative projects which have included major corporations, unions, rehabilitation facilities, state vocational rehabilitation agencies, small businesses, advocacy organizations and national trade associations. The purpose of PWI is to, "promote opportunities for competitive employment of individuals with handicaps, to provide appropriate placement resources, to engage the talent and leadership of private industry as partners in the rehabilitation process, to create practical settings for job readiness and training programs, and to secure the participation of private industry in identifying and providing job opportunities and the necessary skills and training to qualify people with handicaps for competitive jobs". Each project has a business advisory council that provides private sector participation by identifying jobs and training requirements. Standards have been established for PWI. Each project must meet certain indicators of success for these projects to be continued. In FY 1991 RSA funded 124 projects.

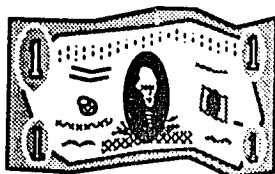
IMPACT OF THE PRESIDENT'S FY 1992 BUDGET REQUEST: The budget requests no funds for programs under the Rehabilitation Act pending reauthorization.

CCD RECOMMENDATION: The CCD recommends \$50 million for the Projects With Industry program for FY 1992.

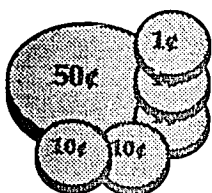
JUSTIFICATION: In 1988 the Rehabilitation Services Administration collected the first comprehensive data from all of the current PWIs. The total amount of Federal PWI funds reported was \$15.75 million. Over 13,500 persons with disabilities were placed into competitive employment. More than 60% of these persons were severely disabled. Over 3000 were on Supplemental Security Income (SSI) or Social Security Disability Insurance prior to being placed into a job through PWI. The average cost per placement (Federal dollars) was \$1164. The average person placed improved their income by \$8260 a year. Their average earnings per year was \$10,622. Based on the above figures the PWI graduates for that one year will earn more than \$143 million a year. This is money that will go back into our economy. The Social Security withholding tax (FICA) from the individuals and their new employers will total more than \$27 million. For the 3000 former SSI and SSDI recipients the Federal government will save over \$16 million a year. These PWI graduates from that one year will pay over \$11.5 million in income taxes. For a Federal expenditure of \$15.75 million the Federal government will get back or save over \$54 million in one year. This is \$3.42 for each Federal dollar spent on PWI in one year. PWI graduates will continue working for many years and these savings will multiply. Since each new and continuing project must meet the performance standards and indicators the Federal government would realize over \$170 million in actual savings for an appropriation of \$50 million.

* I-NABIR is a member of the Consortium

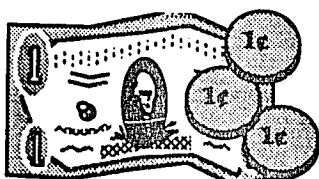
Cost Benefit of PWI



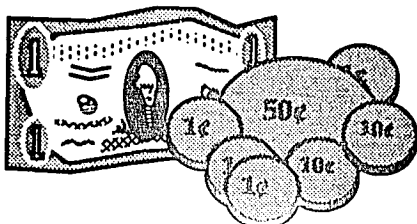
**for each Federal dollar spent
on PWI**



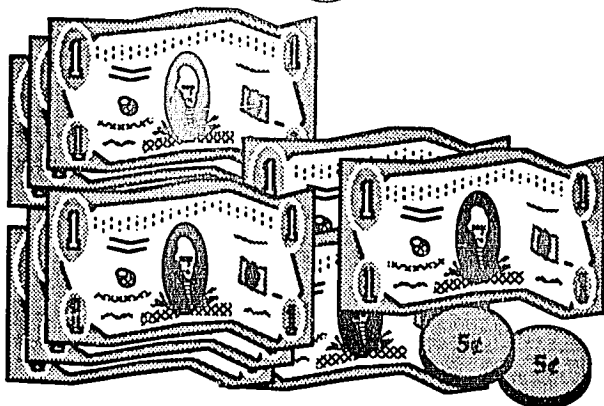
**73¢ is paid each year
in Federal income tax
by persons
placed into jobs by PWI**



**\$1.03 is saved each year
in SSI/SSDI payments
since over 20% of PWI placements
were on SSI/SSDI before placement**



**\$1.74 is paid each year
as FICA withholding
by persons placed
and employers**



**\$9.10 is earned each
year by PWI placements
for each dollar spent on
PWI**

I-NABIR

The Association of Projects with Industry

PWI and ADA

WHAT WILL ADA MEAN FOR PROJECTS WITH INDUSTRY?

PWI will be in a unique position to assist businesses to comply with the most important part of ADA – nondiscrimination in employment. The purpose of PWI under the Rehabilitation Act includes, "... to engage the talent and leadership of private industry as partners in the rehabilitation process... and to secure the participation of private industry in identifying and providing job opportunities and the necessary skills and training to qualify people with handicaps for competitive jobs".

WHAT DOES ADA REQUIRE IN THE AREA OF EMPLOYMENT?

An employer cannot discriminate against a qualified individual with a disability because of the disability in regard to job application procedures, hiring or firing, employee compensation, advancement, job training and other terms and conditions of employment.

Discrimination includes not making reasonable accommodation unless the employer can show that the accommodation would impose an undue hardship on the operation of the business. Reasonable accommodation might include job restructuring, part-time or modified schedules, equipment acquisition or modification, adjustment to training or tests, and provision of readers or interpreters.

An undue hardship means an action requiring difficulty or expense. Factors used to determine undue hardship would include the size of the business, the type of operation, and the nature and cost of the accommodation.

The employment discrimination provisions of ADA would not become effective until two years after passage. During the first two years after the provision does become effective only employers with 25 or more employees will be covered. After that two year period only employers with 15 or more employees will be covered.

WHAT CAN PWIS DO?

Most PWIs already provide the type of assistance and advice that the business community will need to comply with ADA. Job training, placement, support services, job modification, special aids, appliances, or adapted equipment, and the modification of facilities or equipment are all services that can be provided under PWI. Most important, all PWIs have business advisory councils (BACs) who help identify local job and training needs.

Much of the opposition to ADA from some segments of the business community is based on misinformation and unfounded fears. PWIs can be an important means of helping businesses comply with ADA after its passage. PWIs can do several things for the business community with regard to ADA to help overcome the misconceptions and fears. PWIs can continue and expand their efforts to place persons with disabilities into competitive community jobs. PWIs can assist employers establish policies and programs that will comply with the employment provisions of ADA. PWIs can provide technical assistance in providing reasonable accommodations. BACs can be an important vehicle in educating the rest of the business community of the good business sense it makes to hire and promote persons with disabilities.

I-NABIR will be working to increase authority and funding for PWI to provide these employment related services to employers.

INTER-NATIONAL ASSOCIATION OF BUSINESS, INDUSTRY and REHABILITATION
P.O. Box 15242 (1018 South Carolina Avenue SE) Washington, DC 20003
202 543-6353 FAX: 202 546-2854



Appendix E
RSA PWI Performance Compliance Indicators

PROJECTS WITH INDUSTRY

INDICATORS OF COMPLIANCE WITH ESTABLISHED STANDARDS

(This completed report is to be a part of each submitted annual report of project performance.)

Standard 1. The primary objective of the project shall be to assist individuals with disabilities to obtain competitive employment. The activities carried out by the project shall support the accomplishment of this objective.

- a. Does this project have this objective? (y/n) ()
- b. Does this project provide direct placement services? (y/n) ()
- c. If not, does this project provide technical assistance and training to other projects which provide direct placement services? (y/n) ()

Standard 2. The project shall serve individuals with disabilities that impair their capacity to obtain competitive employment. In selecting persons to receive services, priority shall be given to individuals with severe disabilities.

- a. Does this project give priority for service to persons with more severe disability? (y/n) ()
- b. Does this project actively seek out persons with more severe disability to serve? (y/n) ()
- c. What proportion of the total population receiving services during this grant year meet your state's definition of "severe disability"? (percent) ()

Standard 3. The project shall ensure the provision of services that will assist in the placement of persons with disabilities.

- a. Does the project provide job skills training? (y/n) ()
- b. Does the project provide job seeking skills training? (y/n) ()
- c. Does the project provide job seeking assistance? (y/n) ()

Standard 6. Working relationships, including partnerships, shall be established with agencies and organizations in order to expand the project's capacity to meet its objectives.

- a. Proportion of referrals received from other agencies (percent) ()
- b. Number of employers with whom clients have been placed ()
- c. Number of other agencies who have provided services supporting your clients ()

Standard 7. The project shall obtain positive results in assisting individuals with disabilities to obtain competitive employment.

Using the information given previously, provide the following

- a. Number of persons placed [4c] ()
- b. PWI grant cost per placement [4a divided by 4c] ()

Comments or explanations may be appended here and/or on succeeding sheets if it is desired to provide additional information.

Appendix F
Factor Analysis

MRS FACTOR ANALYSIS

VARIMAX ROTATION 1 FOR EXTRACTION 1 IN ANALYSIS 1 - KAISER NORMALIZATION
 VARIMAX CONVERGED IN 12 ITERATIONS. ROTATED FACTOR MATRIX:

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6
Restructure Work	.85733					
Adaptive Equipment	.82629					
.Job Analysis	.81691					
Disability Awareness	.70703					
.Job Coach	.55074					
Archetectural Barriers	.53266			.49201		
TJTC paperwork		.88256				
Archetectural Barriers		.85389				
Second Injury paper		.81144				
Predictable Methods		.57002				
Routine Prodecures		.53470			.42215	
Input Skill Assessment			.82772			
Input Training			.77520			
Input Placement Methods			.70079			
Job Analysis			.61919			
Training			.43405		.39217	
Dependable & Eager				.81370		
Genuine Interest				.81356		
Federal Compliance				.73471		
Ready Supply				.32412		
Ample Supply					.65338	
Advance Notice					.63487	
Employer specs.					.54998	.44542
Reliable Source		.50545			.53215	
Reduces Workload						.71979
Reduce Risk						.65749
Evaluate Skills					.34207	.60247
Trail Work						
Follow Up						.34832
Same Individual						
Routine procedures						
	FACTOR 7	FACTOR 8				
Restructure Work.						
Ample Supply	.30730					
Advance Notice						
Employer Specs.						
Reliable Source						
Reduces Risk	.31808					
Evaluates Skills						
Trail Work	.76684					
Follow up	.59148					
Same Individual		.74443				
Ability to Contact Rep.		.48146				

Appendix G

Approval Letter From the Human Subjects Institutional Review Board

Human Subjects Institutional Review Board



Kalamazoo, Michigan 49008-3899

WESTERN MICHIGAN UNIVERSITY

Date: January 8, 1990

To: Robert Joseph Leneway

From: Mary Anne Bunde, Chair

This letter will serve as confirmation that your research protocol, "With Wizards in Wonderland: A Comparative Marketing Study of Competitive Employment Outcomes for the Rehabilitation Services Administration's Projects with Industry and State/Federal Vocational Rehabilitation Programs", has been approved under the exempt category of review by the HSIRB. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the approval application. You must seek reapproval for any changes in this design.

The Board wishes you success in the pursuit of your research goals.

xc: P. Kobrak, Public Administration

HSIRB Project Number 89-12-04

End Date of Approval January 8, 1991

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A COMPARATIVE STUDY OF EMPLOYMENT OUTCOMES OF THE
PROJECTS WITH INDUSTRY AND THE STATE/FEDERAL
VOCATIONAL REHABILITATION PROGRAMS

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Persons with disabilities represent the largest group of unemployed workers in the United States. The purpose of this research is to compare employer perceptions and competitive employment outcomes of the Rehabilitation Services Administration's employment programs known as Projects With Industry and the state/federal basic Vocational Rehabilitation program. These programs represent the two major vocational rehabilitation delivery systems in the United States. Competitive employment outcomes were compared on the national level using data supplied by the Rehabilitation Services Administration. Employer perceptions were compared using data obtained from surveys of 446 Michigan employers. The employers' marketing expectations and perceptions of performance were compared for the state's Vocational Rehabilitation program and six Projects With Industry organizations.

Multiple regression was used to test three multivariate hypotheses relating program expectations and performance ratings to employer satisfaction. The reasons for an employer's involvement with a Projects With Industry program were also ranked in order of importance.

The research showed that persons with disabilities who are served by a Projects With Industry program as well as by the state/federal basic Vocational Rehabilitation program have a much greater chance of obtaining competitive employment at a higher entry wage level than those served only by the state/federal basic Vocational Rehabilitation program. Although client and employer characteristics were found to be similar in the two programs, employers have different levels of expectations and performance perceptions when viewing these different rehabilitation programs. As a result of these differences, employers are more likely to be satisfied by different marketing treatments. The Vocational Rehabilitation program is generally more strategically effective in Supply and Handicapper Specific marketing factors. The Projects With Industry program displays greater strategic effectiveness in dealing with such marketing factors as customer service, screening, and training. Thus, the Projects With Industry and the state/federal basic Vocational Rehabilitation program were found to be complementary rather than competitive programs.